SHARP SERVICE MANUAL

No. S6631GXCH170Z

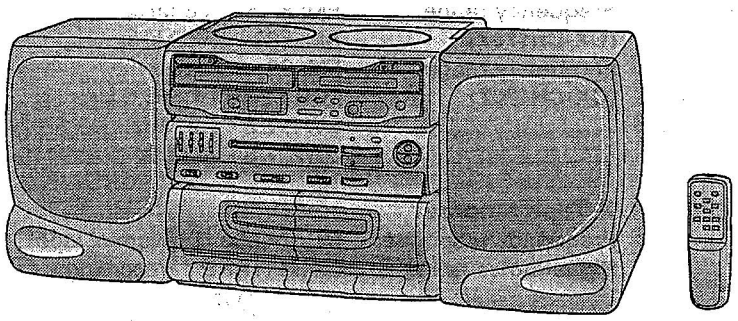

Illustration: GX-CH170Z

GX-CH170X
GX-CH170Z

COMPACT disc DIGITAL AUDIO

• In the interests of user-safety the set should be restored to its original condition and only parts identical to those specified should be used.

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DIFFERENCE BETWEEN GX-CH170X AND GX-CH170Z

	GX-CH170X	GX-CH170Z
TUNER	2 BAND	4 BAND
FINE TUNING	×	○
FM STEREO INDICATOR	×	○
POWER SOURCE	AC 220-240 V,50 Hz	AC 110-127/220-240 V, 50/60 Hz

SHARP CORPORATION

FOR A COMPLETE DESCRIPTION OF THE OPERATION OF THIS UNIT, PLEASE REFER TO THE OPERATION MANUAL.

SPECIFICATIONS

● General

Power source:	AC 220-240 V, 50 Hz
(GX-CH170X)	DC 12 V ["D" size (UM/SUM-1, R20 or HP-2) battery x 8]
Power source:	AC 110-127/220-240 V, 50/60 Hz
(GX-CH170Z)	DC 12 V ["D" size (UM/SUM-1, R20 or HP-2) battery x 8]
Power consumption:	55 W
Output power:	PMPO; 60 W (total)
	MPO (Max.); 24 W (12 W + 12 W) (AC operation)
	RMS; 10 W (5 W + 5 W) (DC operation, 10 % T.H.D.)
Output terminal:	Headphones; 16 - 50 ohms (recommended; 32 ohms)
Dimensions:	Width; 290 mm (11-1/2")
	Height; 260 mm (10-1/4")
	Depth; 277 mm (10-15/16")
Weight:	4.3 kg (9.5 lbs.) without batteries

● Compact disc player

Type:	Twin CD mechanism
Signal readout:	Non-contact, 3-beam semi-conductor laser pickup
Audio channels:	2
D/A converter:	1-bit D/A converter
Decoder:	16-bit linear quantization
Filter:	4-tims oversampling digital filter
Wow and flutter:	Unmeasurable (less than 0.001% W. peak)

● Radio

Frequency range:	FM; 87.6 - 108 MHz
(GX-CH170X)	AM; 530 - 1,702 kHz
Frequency range:	FM; 88 - 108 MHz
(GX-CH170Z)	MW; 526.5 - 1,606.5 kHz
	SW1; 2.3 - 7.3 MHz
	SW2; 7.3 - 22 MHz

● Tape recorder

Frequency response:	50 - 14,000 Hz (Normal tape)
Signal/noise ratio:	50 dB (TAPE 1, recording / playback)
	55 dB (TAPE 2, playback)
Wow and flitter:	0.25 % (WRMS)
Motor:	DC 12 V electric governor
Bias system:	AC bias
Erase system:	AC erase

● Speaker section

Type:	2-way 4-speaker bass-reflex type
Speakers:	10 cm (4") woofer x 2
	Tweeter x 2
Maximum input power:	8 W
Impedance:	3.2 ohms
Dimensions:	Width; 190 mm (7-1/2")
	Height; 260 mm (10-1/4")
	Depth; 183 mm (7-1/4")
Weight:	1.3 kg (2.9 lbs.) /each

Specifications for this model are subject to change without prior notice.

VOLTAGE SELECTION (GX-CH170Z ONLY)

Before operating the unit on mains, check the preset voltage. If the voltage is different from your local voltage. Slide the AC power supply socket cover by slightly loosing the screw to the visible indication of the side of your local voltage.

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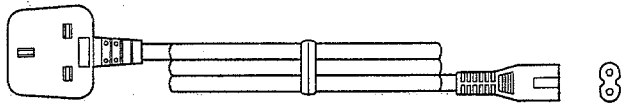

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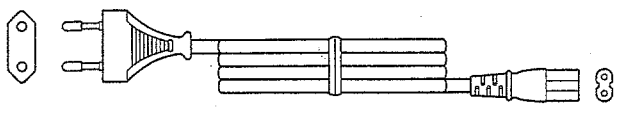

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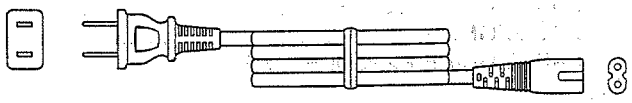

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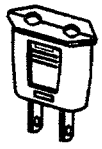
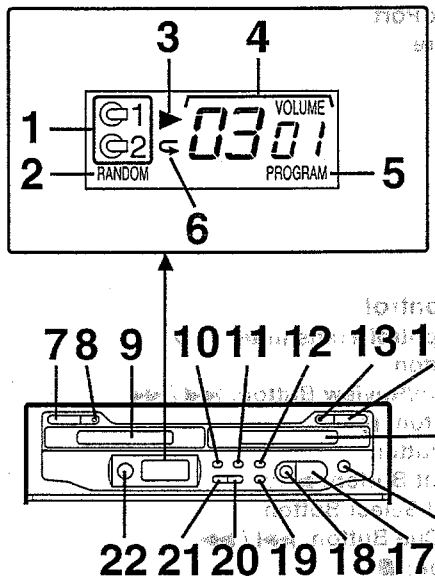


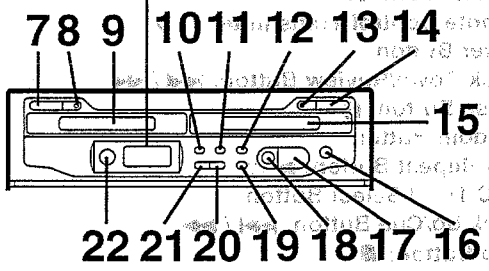
Figure 2 AC POWER SUPPLY CORD AND AC PLUG ADAPTOR

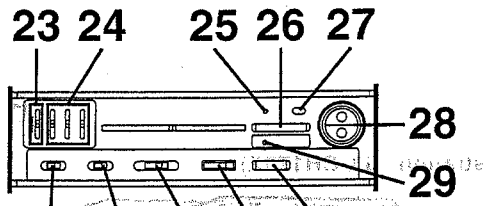
NAMES OF PARTS

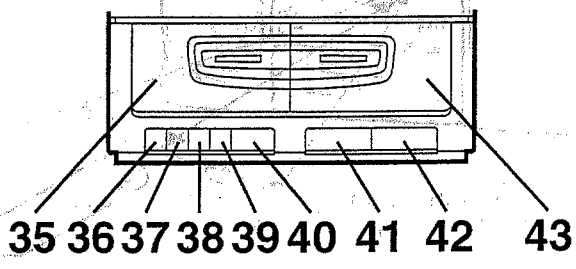
■ Main unit (Illustration: GX-CH170Z)

1. Disc Number Indicator
2. Random Indicator
3. CD Play Indicator: ▶
4. Track Number/Minutes and Seconds/Volume Level/ Programme Number Indicator
5. Programme Indicator
6. CD Repeat Indicator: ⊂
7. (DISC 1) Open/Close Button: ▲
8. (DISC 1) Indicator
9. (DISC 1) Disc Tray
10. Random Play Button
11. Clear Button
12. Programme Button
13. (DISC 2) Indicator
14. (DISC 2) Open/Close Button: ▲
15. (DISC 2) Disc Tray
16. DISC 1↔2 Select Button
17. (CD) Play/Repeat Button: ▶ ⊂
18. (CD) Stop Button: ■
19. (CD) Pause Button: ❚❚
20. (CD) Track Up/Cue Button: ▶▶❙ / ▶▶
21. (CD) Track Down/Review Button: ❙◀◀ / ◀◀
22. Remote Control Sensor
23. Extra Bass Control: X-BASS
24. Graphic Equalizer Controls
25. Stand-By Indicator
26. Tuning Control
27. Power Button
28. Volume Up/Down Button: ∧ / ∨
29. FM Stereo Indicator (GX-CH170Z ONLY)
30. Dubbing Speed/Beat Cancel Switch
31. Band Selector Switch (GX-CH170X)
31. Tape Selector/FM Mode Switch (GX-CH170Z)
32. Function Selector/Remote Control Switch
33. Band Selector Switch (GX-CH170Z ONLY)
34. Fine Tuning Control (GX-CH170Z ONLY)
35. (TAPE 1) Cassette Compartment
36. (TAPE 1) Record Button: ●
37. (TAPE 1) Play Button: ▶
38. (TAPE 1) Rewind Button: ◀◀
39. (TAPE 1) Fast Forward Button: ▶▶
40. (TAPE 1) Stop/Eject Button: ■ / ▲
41. (TAPE 2) Play Button: ▶
42. (TAPE 2) Stop/Eject Button: ■ / ▲
43. (TAPE2) Cassette Compartment



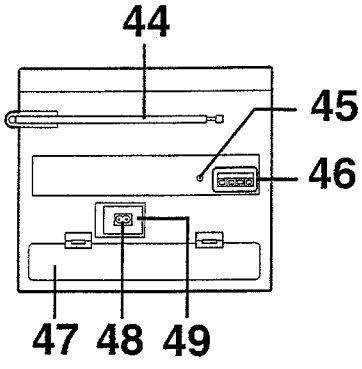






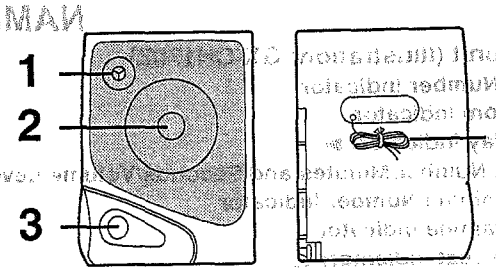
■ Rear panel

44. FM Telescopic Rod Aerial (GX-CH170X)
44. FM/SW Telescopic Rod Aerial (GX-CH170Z)
45. Headphone Socket
46. Speaker Terminals
47. Battery Compartment
48. AC Power Input Socket
49. AC Voltage Selector (GX-CH170Z ONLY)



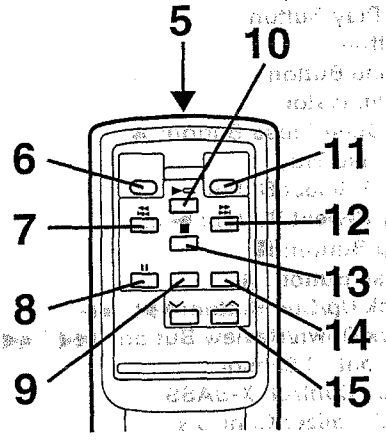
■ Speaker section

1. Tweeter
2. Woofer
3. Bass Reflex Port
4. Speaker Wire



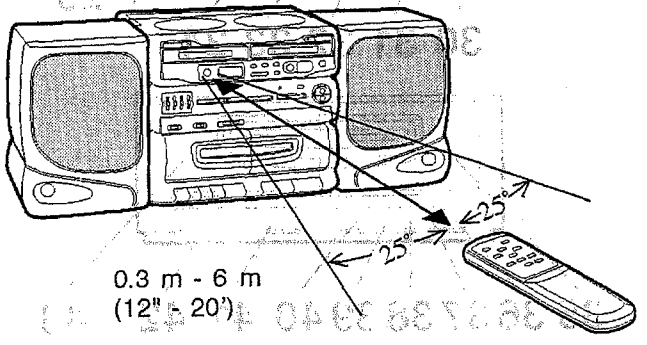
■ Remote Control

5. Remote Control Transmitter LED
6. Power Button
7. Track Down/Review Button: ⏮ / ◀◀
8. Pause Button: ⏸
9. Random Button
10. Play/Repeat Button: ▶ ⊂
11. DISC 1↔2 Select Button
12. Track Up/Cue Button: ⏭ / ▶▶
13. Stop Button: ■
14. Programme Button
15. Volume Up/Down Buttons: ∧ / ∨



REMOTE CONTROL

(Illustration: GX-CH170X)



Notes concerning use:

- Replace the batteries if control distance decreases or operation becomes erratic.
- Periodically clean the transmitter LED on the remote control and the sensor on the main unit with a soft cloth.
- Exposing the sensor on the main unit to strong light may interfere with operation. Change the lighting or the direction of the unit.
- Keep the remote control away from moisture, excessive heat, shock, and vibrations.

DISASSEMBLY

Caution on Disassembly

Follow the below-mentioned notes when disassembling the unit and reassembling it, to keep it safe and ensure excellent performance:

1. Take cassette tape and compact disc out of the unit.
2. Be sure to remove the power supply plug from the wall outlet before starting to disassemble the unit.
3. Take off nylon bands or wire holders where they need be removed when disassembling the unit. After servicing the unit, be sure to rearrange the leads where they were before disassembling.
4. Take suffcient care on static electricity of integrated circuits and other circuits when servicing.

STEP	REMOVAL	PROCEDURE	FIGURE
UNIT			
1	Front Cabinet	1. Screw ..... (A1) x11 2. Socket ..... (A2) x1 3. Tip ..... (A3) x1	5-1 5-2 6-5
2	CD Block	1. Screw ..... (B1) x2 2. Socket ..... (B2) x3	5-2 5-3
3	Graphic EQ. PWB	1. Screw ..... (C1) x3 2. Socket ..... (C2) x1	5-3
4	Tuner PWB (with Tuner Frame)	1. Screw ..... (D1) x2 2. Flat Cable ..... (D2) x1	5-3
5	Main PWB	1. Hook ..... (E1) x1 2. Flat Cable ..... (E2) x3	5-3 5-3,6-1
6	Display PWB/ Switch PWB	1. Screw ..... (F1) x9 2. Hook ..... (F2) x1	5-3,6-1 6-1
7	Deck PWB	1. Screw ..... (G1) x3 2. Socket ..... (G2) x3	6-1
8	Tape Mechanism	1. Open the cassette holder. 2. Screw ..... (H1) x6	6-2
9	CD Servo PWB	1. Screw ..... (J1) x2	6-3
10	CD Mechanism	1. Screw ..... (K1) x6	6-4
11	Power PWB/ Terminal PWB	1. Open the battery lid. 2. Screw ..... (L1) x4 3. Hook ..... (L2) x1	6-5
SPEAKER			
1	Front Panel	1. Screw ..... (N1) x4	6-6

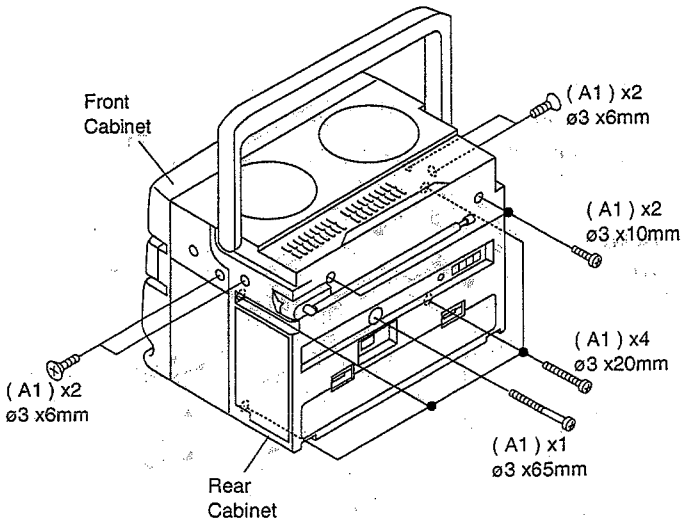


Figure 5-1

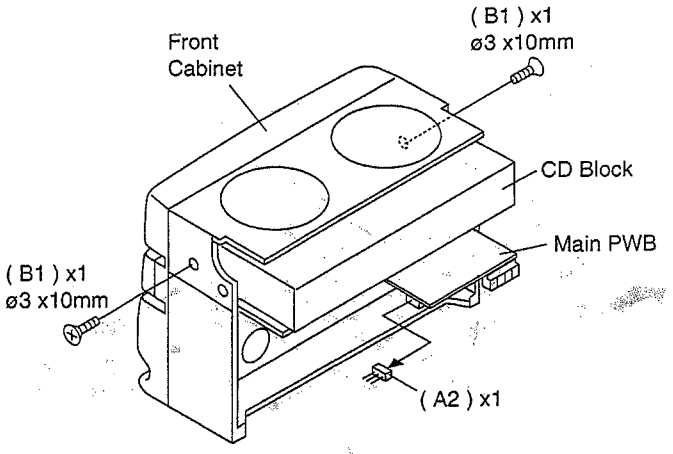


Figure 5-2

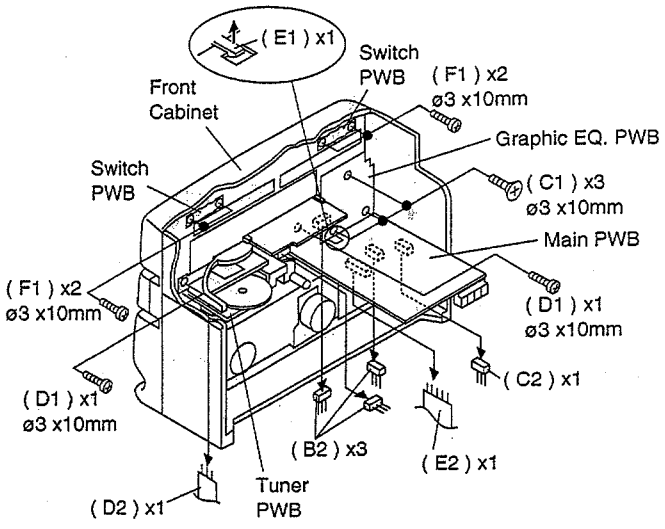


Figure 5-3

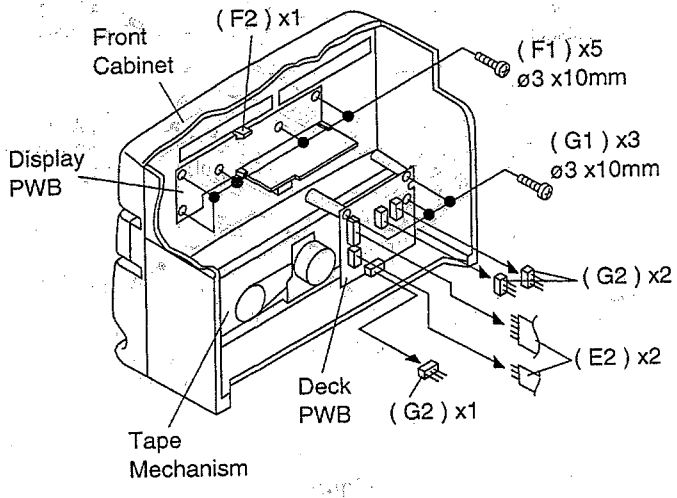


Figure 6-1

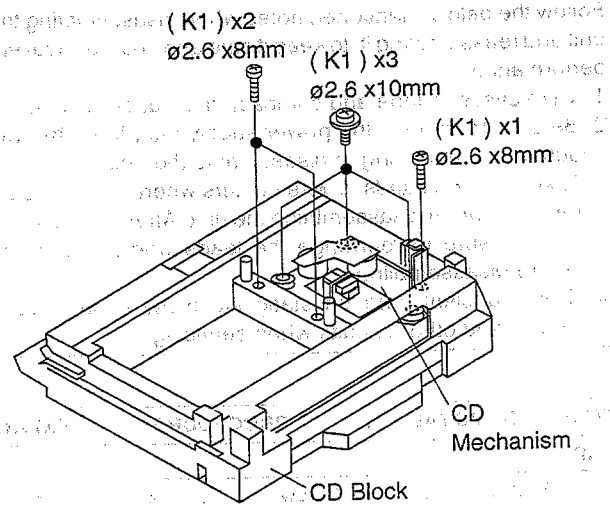


Figure 6-4

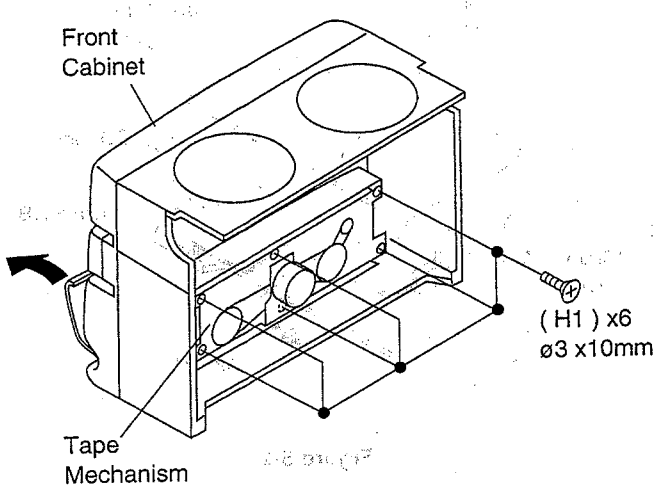


Figure 6-2

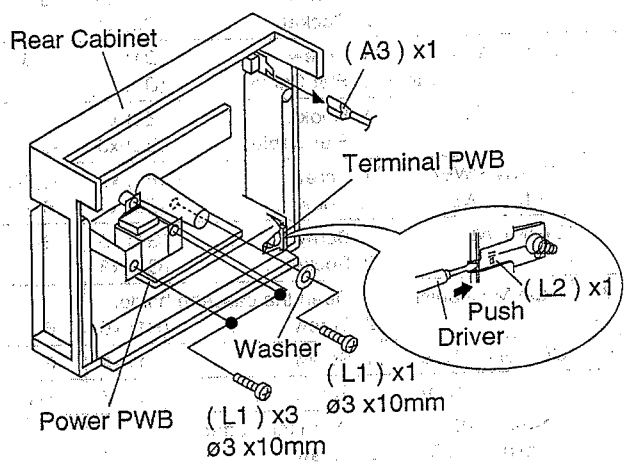


Figure 6-5

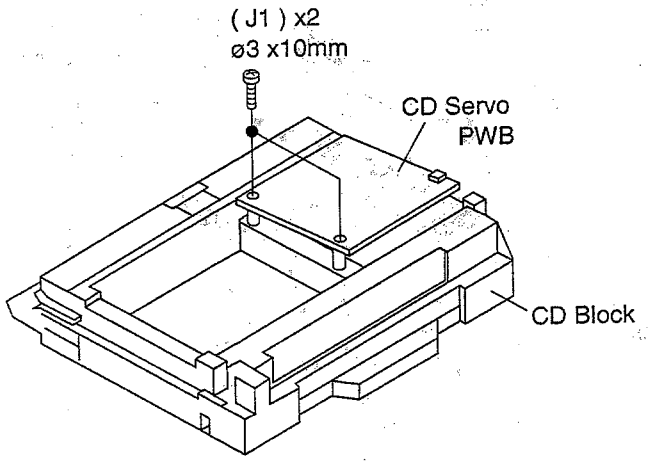


Figure 6-3

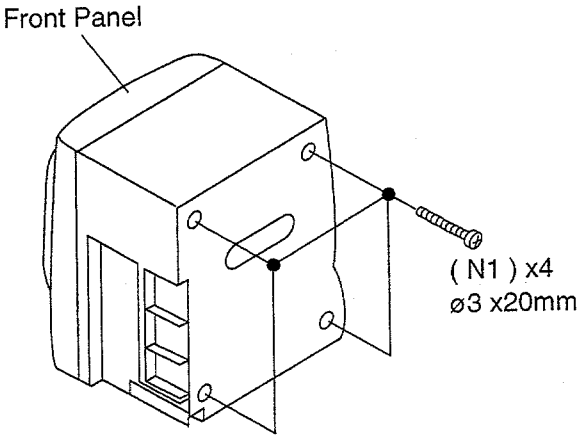


Figure 6-6

REMOVING AND REINSTALLING THE MAIN PARTS

TAPE MECHANISM SECTION

Perform steps 1, 2, 3, 4, 5, 7 and 8 of the disassembly method to remove the tape mechanism.

How to remove the record/playback and erase heads (TAPE 1) (See Fig. 7-1.)

1. Carefully bend the record/playback head pawls (A1) x 2 pcs., in the direction of the arrow Ⓐ, and remove the record/playback head upwards.
2. Remove the screws (B1) x 2 pcs., to remove the erase head.

How to remove the playback head (TAPE 2) (See Fig. 7-2.)

1. Carefully bend the playback head pawls (C1) x 2 pcs., in the direction of the arrow Ⓑ, and remove the playback head upwards.

How to remove the pinch roller (TAPE 1/2) (See Fig. 7-3.)

1. Carefully bend the pinch roller pawl in the direction of the arrow Ⓒ, and remove the pinch roller (D1) upwards.

How to remove the belt (TAPE 1) (See Fig. 7-4.)

1. Remove the main belt (E1) x 1 pc., from the motor side.
2. Remove the FF/REW belt (E2) x 1 pc.

How to remove the belt (TAPE 2) (See Fig. 7-4.)

1. Remove the tape 2 main belt (E1) x 1pc., from the motor side.
2. Remove the tape 1 main belt (F1) x 1pc., from the motor side.

How to remove the motor (See Figs. 7-5 and 7-6.)

1. Remove the belt.
2. Remove the screws (G1) x 4 pcs., to remove the motor fixtire.
3. Remove the screws (G2) x 2 pcs., to remove the motor.

Note:
When mounting the motor, pay attention to the motor mounting angle.

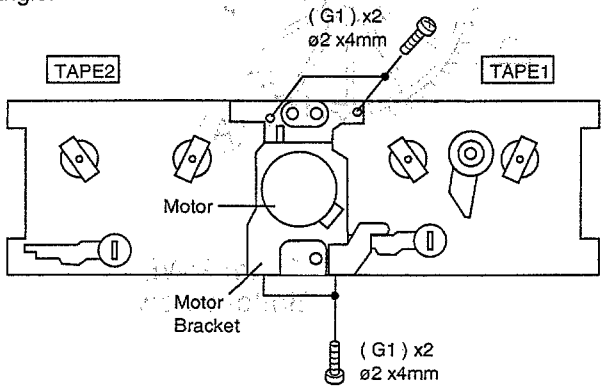


Figure 7-5

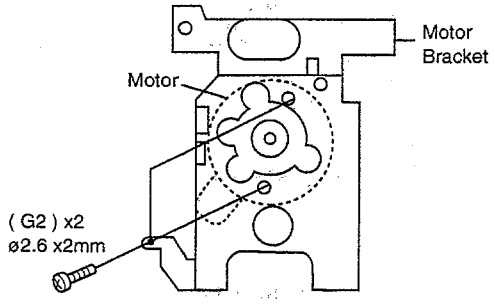


Figure 7-6

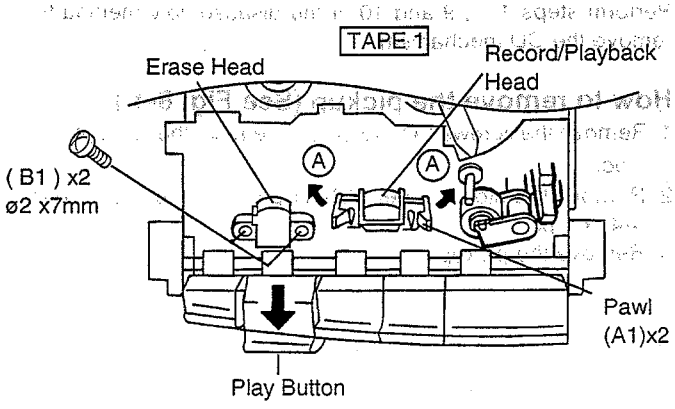


Figure 7-1

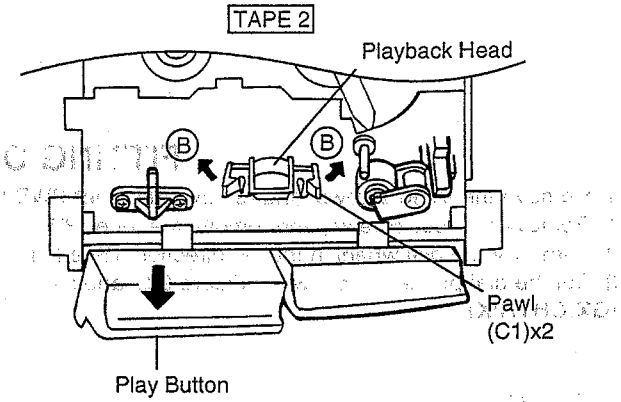


Figure 7-2

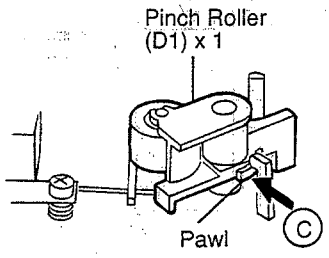


Figure 7-3

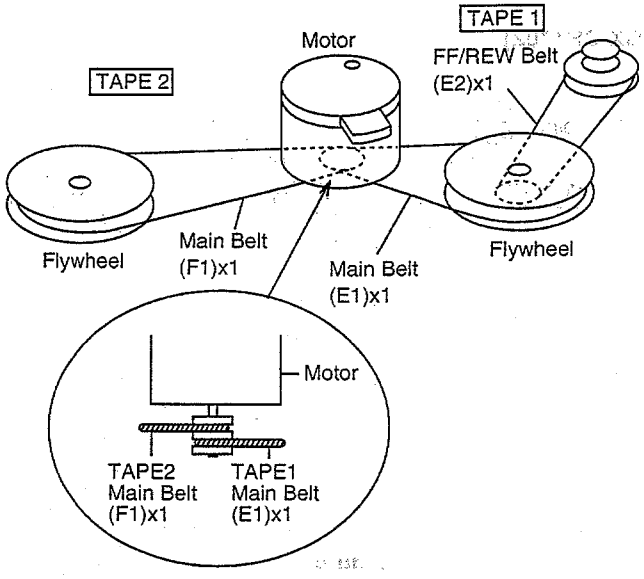


Figure 7-4

CD MECHANISM SECTION

Perform steps 1, 2, 9 and 10 of the disassembly method to remove the CD mechanism.

How to remove the pickup (See Fig. 8-1.)

1. Remove the screws (A1) x2 pcs., to remove the shaft (A2) x 1 pc.
2. Remove the stop washer (A3) x1 pc., to remove the gear (A4) x 1 pc.
3. Remove the pickup.

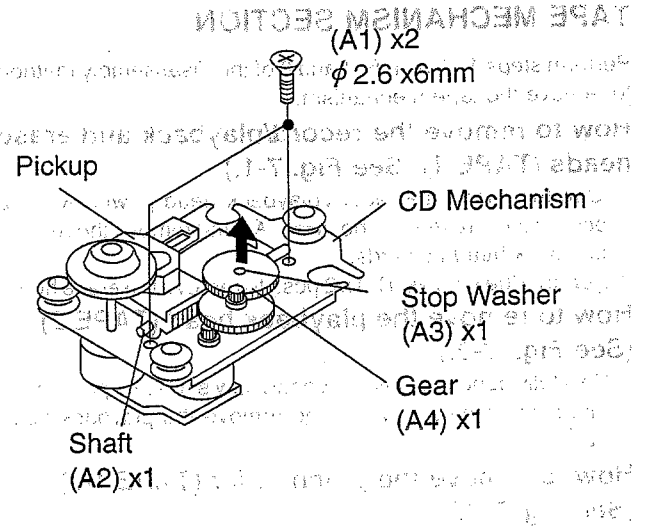
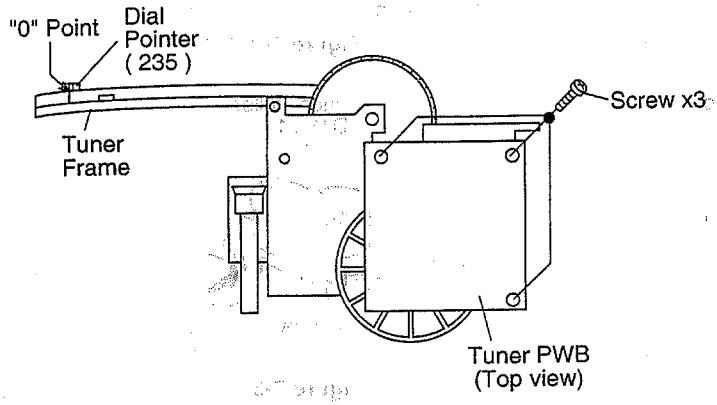


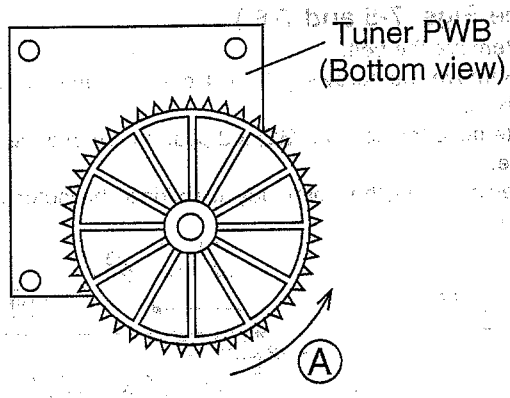
Figure 8-1

FITTING OF DIAL POINTER

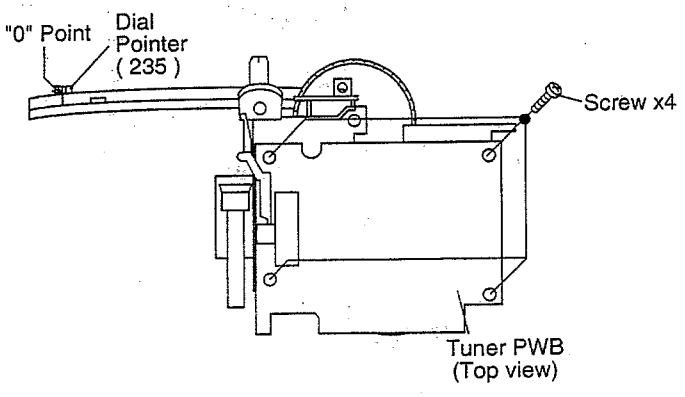
1. Remove the three screws, and remove the tuner PWB from the tuner frame. (See Fig. 8-2) [GX-CH170X]
1. Remove the four screws, and remove the tuner PWB from the tuner frame. (See Fig. 8-2) [GX-CH170Z]
2. Turn fully the dial wheel in the Ⓐ direction. (See Fig. 8-3)
3. Set the dial pointer as shown in Figure 9-2, and mount the tuner PWB.

(GX-CH170X)





(GX-CH170Z)



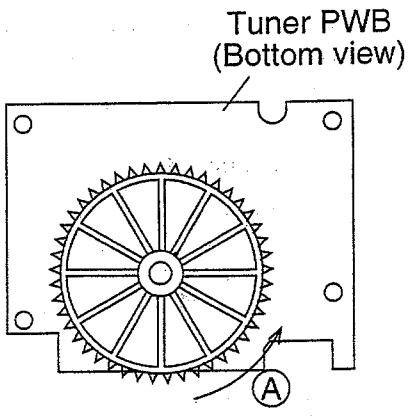


Figure 8-2

Figure 8-3

ADJUSTMENT

MECHANISM SECTION

• Driving Force Check

Torque Meter	Specified Value
PLAY: TW-2412	Tape 1: Over 50 g Tape 2: Over 100 g

• Torque Check

Torque Meter	Specified Value	
	Tape 1	Tape 2
Play: TW-2111	30 to 60 g.cm	30 to 60 g.cm
Fast Forward: TW-2231	80 to 135 g.cm	———
Rewind: TW-2231	80 to 135 g.cm	———

• Tape Speed

	Test Tape	Adjusting Parts	Specified Value	Instrument Connection
Nomal speed	MTT-111	VR391	3,000 ± 30 Hz	Speaker terminal (Load resistance: 6 ohms)

TAPE SECTION

Position of each switch or control	
Volume control Beat cancel Function/Power switch	Max A Tape/Off

• Bias Oscillation Check

	Specified Value	X	Z
Beat cancel	A: 82 + 10 kHz / -6 kHz B: -2 ± 2 kHz C: +3 ± 2 kHz	-4 0	-9 +1.5

• Erase Current Check

	Specified Value
Resistor for measurement: 1 ohm	50 ± 15 mV

• Playback Amplifier Sensitivity Check

Test Tape	Specified Value	Instrument Connection
MTT-118	1.8 V ± 3 dB	Speaker Terminal (Load resistance: 6 ohms)

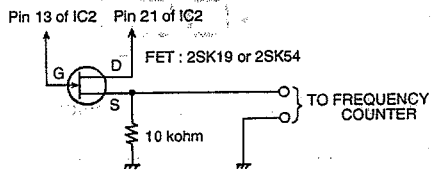


Figure 9-1 VCO FREQUENCY TEST CIRCUIT

TUNER SECTION

fL: Low-range frequency

fH: High-range frequency

• FM IF/RF

Test Stage	Specified Value/Adjusting Point	Instrument Connection
IF	T1	Input: Pin 1 of IC1 Output: Pin 17 of IC2
Detection	T2	
Band Coverage	87.4 MHz (fL): L2 108.2 MHz (fH): TC2	Iuput: Antenna Output: Headphones Socket (Load resistance: 32 ohms)
Tracking	88.0 MHz (fL): L1 108.0 MHz (fH): TC1	

• AM IF/RF

Test Stage	Specified Value/Adjusting Point	Instrument Connection
IF	T3	Input: Antenna Output: Pin 19 of IC2
AM Band Coverage (GX-CH170X)	fL: L4 (510 kHz) fH: TC4 (1,750 kHz)	Input: Antenna Output: Headphones Socket (Load resistance: 32 ohms)
MWBand Coverage (GX-CH170Z)	fL: L5 (510 kHz) fH: TC6 (1,650 kHz)	
SW1 Band Coverage (GX-CH170Z)	fL: L4 (2.25 MHz) fH:TC4 (7.4 MHz)	
SW2 Band Coverage (GX-CH170Z)	fL: L7 (7.2 MHz) fH: TC8 (22.5 MHz)	
AM Tracking (GX-CH170X)	600 kHz: L3 1,400 kHz: TC3	
MW Tracking (GX-CH170Z)	600 kHz: L3 (MW) 1,400 kHz: TC5	
SW1 Tracking (GX-CH170Z)	2.6 MHz: L3 (SW1) 6.0 MHz: TC3	
SW2 Tracking (GX-CH170Z)	8.5 MHz: L6 19 MHz: TC7	

• VCO Frequency

Adjusting Point	Specified Value	Instrument Connection
VR1	76 kHz ± 200 Hz	Pin 13, pin 21 and ground of IC2

Note:

After preparing the test circuit shown in Fig. 9-1, connect the Pin 13, Pin 21 and ground of the IC2 with the test circuit, and measure the value. At this time, apply a standard unmodulated signal input and adjust the VCO.

(GX-CH170X) **(GX-CH170Z)**

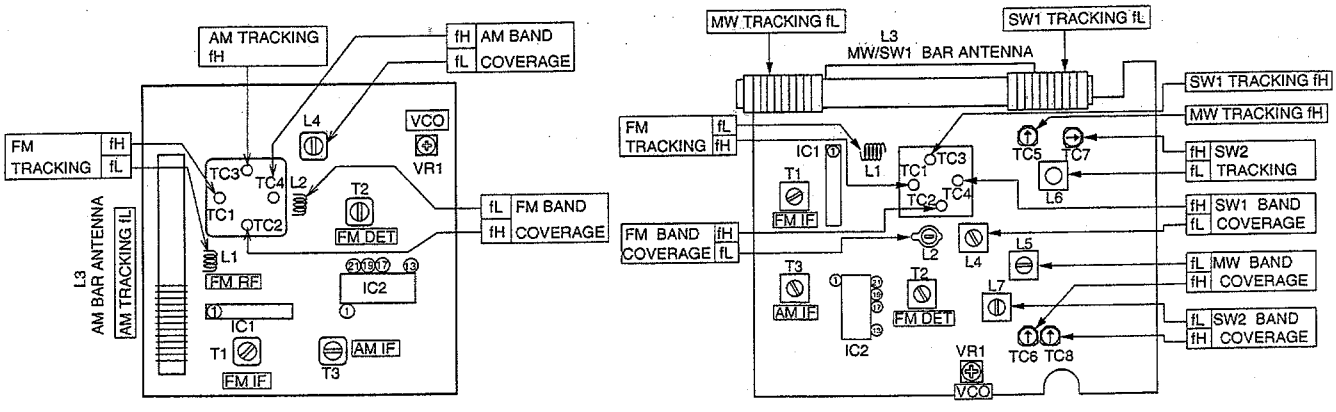


Figure 9-2 ADJUSTMENT POINTS

CD SECTION

Since this CD system incorporates the following automatic adjustment function, when the pickup is replaced, it is necessary to reajust it.
Since this CD unit does not need adjustment, the combination of PWB and laser pickup unit is not restricted.

TEST MODE

Start	After setting the FUNCTION switch to "CD" turn on power. Not later than 1s but later than 500 msec after power is turned on press simultaneously the following buttons. 1. CD TEST mode DISC1/2 + DOWN/REVIEW 2. LCD TEST mode DISC1/2 + UP/CUE 3. ELECTRONIC VOLUME TEST mode DISC1/2 + STOP	
Note	1. When the CD LID switch is in the OFF position, the unit will be able to enter the test mode. However, playback cannot be performed in this mode. 2. The LCD lights wholly.	
Operation	1	The use of the "UP/CUE" button will move the pickup to the outermost position. The use of the "DOWN/REVIEW" button will move the pickup to the innermost position.
	2	When the "PLAY" button is pressed, the laser will be lit, and when the "STOP" button is pressed, it will be turned off. Playback will also start and stop when these buttons are pressed.
		a. If the "PLAY" button is pressed while in the stop mode, the laser will simply be turned on at first. b. If the laser is lit and the "PLAY" button is pressed again, playback will start from the current pickup position. c. If the "STOP" button is pressed, playback will stop. When pressed again, the laser will be turned off.
	3	Turning the tracking servo on or off.
		a. Each time the PAUSE button is pressed during playback, the tracking servo will be turned on or off. (Note: If the PLAY button is pressed while in the stop mode, the tracking servo will automatically be turned on.)
	When the TEST mode is entered, at first the CD mechanism is shifted to Tray 1 or Tray 2. The CD mechanism can be shifted by using the DISC1/2 button. TRAY-1 OPEN/CLOSE button: The Tray1 can be opened and closed. TRAY-2 OPEN/CLOSE button: The Tray2 can be opened and closed.	

LCD MODE

Display	① → 1 second → ② → 1 second → ③ * After the number ③ has appeared in the display, each time the "UP/CUE" button is pressed, the display will switch in the following order: ①, ②, and then ③.

ELECTRONIC VOLUME TEST MODE

Operation	VOL is set to -14 dB (LCD indication "5"). The VOL setting is changed as follows by using the "VOL UP" button or "VOL DOWN" button. VOL UP button: VOL setting Min (LCD indication "0") → VOL setting -14 dB (LCD indication "5") → VOL setting Max (LCD indication "10") VOL DOWN button: VOL setting Max (LCD indication "10") → VOL setting -14 dB (LCD indication "5") → VOL setting Min (LCD indication "0")

TROUBLESHOOTING (CHANGER CONTROL SECTION)

When the changer mechanism fails to operate normally.

Operation failure may be caused by blocking of disc at the changer mechanism tray. Therefore, it is necessary to check at first to see whether there is any disc blocking.
If no abnormal phenomena were found and the normal operation cannot be resumed, check as follows.

Set the FUNCTION switch to REMOTE ON mode, and set the POWER button to ON.

↓

Set the FUNCTION switch to CD.

↓

Does LCD give an indication? — No → Check as stated in item "CD MICROCOMPUTER OPERATION FAILURE".

↓ Yes

Is the tray opened when the OPEN/CLOSE button is pressed? — No → Check as stated in item "THE DISC TRAY CANNOT BE OPENED AND CLOSED".

↓ Yes

Does the CD mechanism move up and stop when disc is selected? — No → Check as stated in item "DISC CHANGE FAILURE".

↓ Yes

Is "Er" displayed after normal stop? — Yes → Check the optical pickup IN switch. (SW702)

↓ No

Normal

• CD microcomputer operation failure.

Is +5V applied to the pin 7 of FW751? — No → Check for contact failure of Flexible wire. If OK, check the main PWB side power line.

↓ Yes

Is +5V applied to the pin 25 (VDD) of IC901? — No → Check the pattern between FW751 and the pin 25 of IC901.

↓ Yes

Is the oscillation circuit (periphery of XL701) of IC901 normal? — No → XL701 or IC901 is faulty.

↓ Yes

Does LCD display appears when the pin 21 (RESET) of IC901 is instantaneously connected to GND — No → Check the reset line.

↓ Yes

Does the LCD indication change in the LCD TEST mode? — No → Check voltage on the pins 41, 42, 43, and 44 of IC901. If OK, IC951 or LCD801 is faulty.

↓ Yes

Normal

• The disc tray cannot be opened and closed.

Is +7.4V applied to the pin 6 of IC761?
- No → Check the +7.5V power line.
- Yes ↓

Does the LCD "?" indication rotate when the main unit or remote control OPEN/CLOSE button is pressed?
- No → Check the main unit button or remote control.
- Yes ↓

Check that the pin 64 of IC901 is in Low state but the pin 1 is in High state when the OPEN/CLOSE button is pressed. (Tray 1 unloading) (Tray 2 unloading: Pin 64 High, pin 1 Low)
- No → Check IC901.
- Yes ↓

Check that +6V is output to the pin 9 in Tray1 mode and that +6V is output to the pin 7 in Tray2 mode.
- No → IC761 is defective.
- Yes ↓

Is about +6V output between pins 4 and 5 of CNP753?
- No → Check the pattern between IC761 and CNP753.
- Yes ↓

Is about +6V applied to the loading motor M981C?
- No → Check for breakage of connecting wire for loading motor M981C.
- Yes ↓

Check the loading motor M981C and loading mechanism.

	IC901		IC761		M981C Motor operation
	Pin 1	Pin64	Pin 7	Pin 9	
Tray1 Open	H	L	0	+6V	Reverse
Tray2 Open	L	H	+6V	0	Forward
Tray1 Close	L	H	+6V	0	Forward
Tray2 Close	H	L	0	+6V	Reverse

• Disc change failure.

Is +7.4V applied to the pin 6 of IC761?

Does the LCD "?" indication rotate when the main unit or remote control DISC CHANGE button is pressed?
- No → Check the main unit button or remote control.
- Yes ↓

Disc move failure?
- Remains persistently. → Check the changer mechanism switches.
- Operation failure ↓

Check that the IC901 pin voltage is as follows:

	Pin 1	Pin 64
Disc2 -> Disc1	L	H
Disc1 -> Disc2	H	L

- No → IC901 is defective.
- Yes ↓

Check that the IC761 pin voltage is as follows:

	Pin 7	Pin 9
Disc1 -> Disc2	0	+6V
Disc2 -> Disc1	+6V	0

- No → IC761 is defective. Or check the pattern between pin 64 of IC901 and pin 1 of IC761, the pattern between pin 1 of IC901 and pin 3 of IC761.
- Yes ↓

Is voltage applied to the loading motor M781C?
- No → Check for breakage of wire CNW753 to loading motor M981C.
- Yes ↓

The motor M981C is defective.

TROUBLESHOOTING (CD SECTION)

When the CD does not function

When the CD section does not operate When the objective lens of the optical pickup is dirty,this section may not operate.Clean the objective lens,and check the playback operation.When this section does not operate even after the above step is taken,check the following items.

Remove the cabinet and follow the troubleshooting instructions.

"Track skipping and/or no TOC(Table Of Contents) may be caused by build up of dust other foreign matter on the laser pickup lens. Before attempting any adjustment make certain that the lens is clean. If not, clean it as mentioned below."

Turn the power off.

Gently clean the lens with a lens cleaning tissue and a small amount of isopropyl alcohol.

Do not touch the lens with the bare hand.

• The CD function will not work.

The CD operating keys don't work.

↓ Yes

Check the CD, DPS microcomputer (IC701), power supply, 4.0 MHz and 16.93 MHz clock, and reset terminal.

↓ Yes

Check the waveform of SCK, SO (DATA) and SI (COMM).

↓ Yes

See if the pick-up is in the pick-up in SW4 position.

↓ Yes

If the items mentioned above are OK, check the main microcomputer IC901.

• The CD operating keys work.

Check the Focus - HF system.

When the PLAY button is pressed without first loading a disc, does the pickup go up and down?

↓ Yes

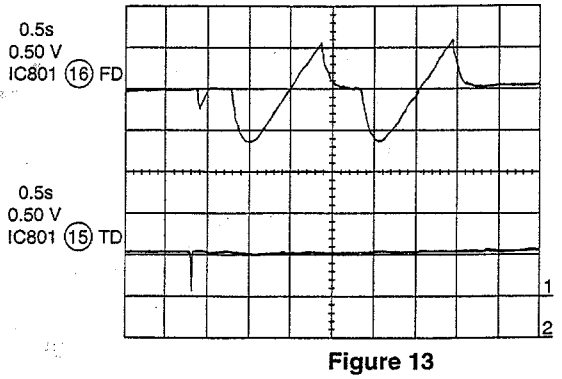
Does the pick-up move up and down twice? → Yes → Focus search OK.

↓ No

Does the output waveform of IC801(16)(FD) match that shown in Fig. 13? → Yes → Check the area around IC804-BI801/CNS801.

↓ No

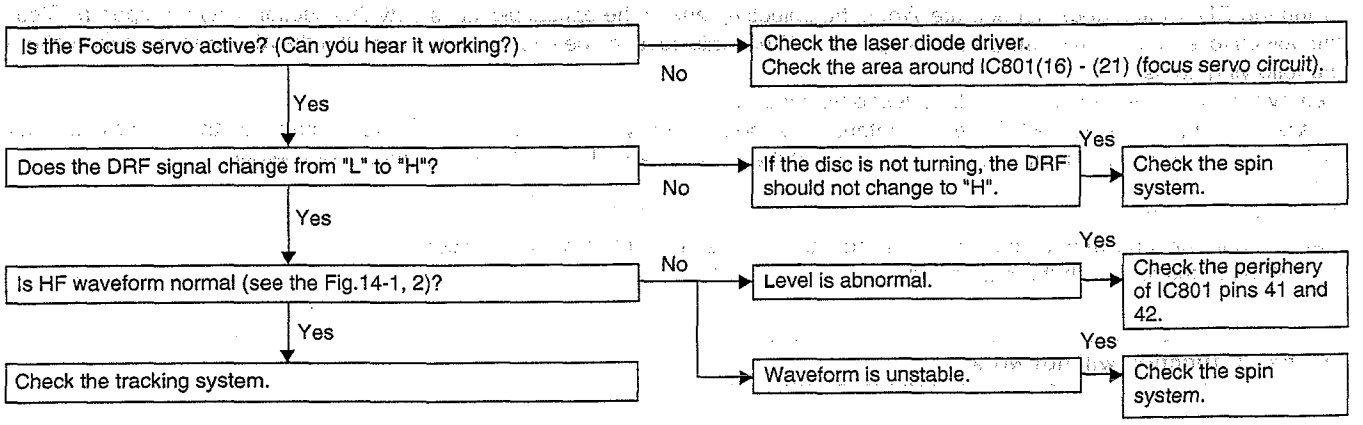
Check the IC801(50)(CLK) line, 4MHz.
Check the microcomputer data on pins (51)(CL), (52)(DAT) and (53)CE.



Focus search is performed two times when play operation is done without disc.

Figure 13

• Playback can only be performed when a disc is loaded.


Is the Focus servo active? (Can you hear it working?)
No
Check the laser diode driver.
Check the area around IC801(16) - (21) (focus servo circuit).
Yes
Does the DRF signal change from "L" to "H"?
No
If the disc is not turning, the DRF should not change to "H".
Yes
Check the spin system.
Yes
Is HF waveform normal (see the Fig.14-1, 2)?
No
Level is abnormal.
Yes
Check the periphery of IC801 pins 41 and 42.
Waveform is unstable.
Yes
Check the spin system.
Check the tracking system.

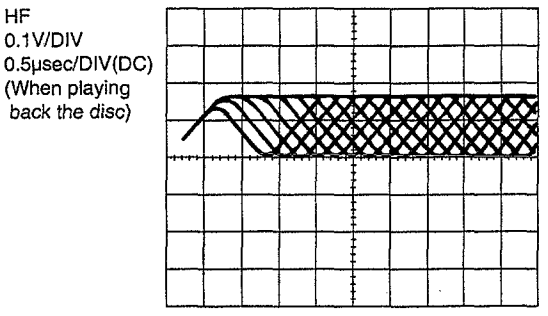


Figure 14-1

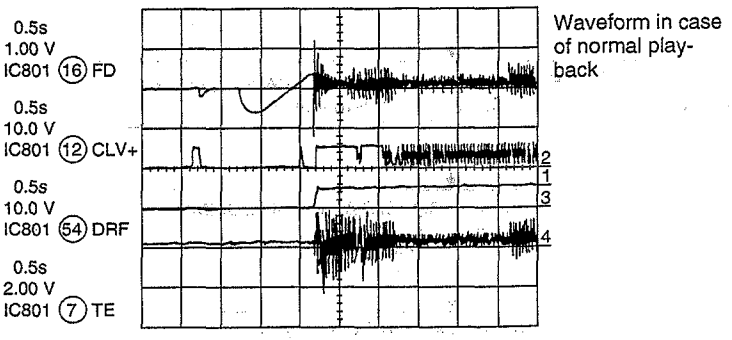
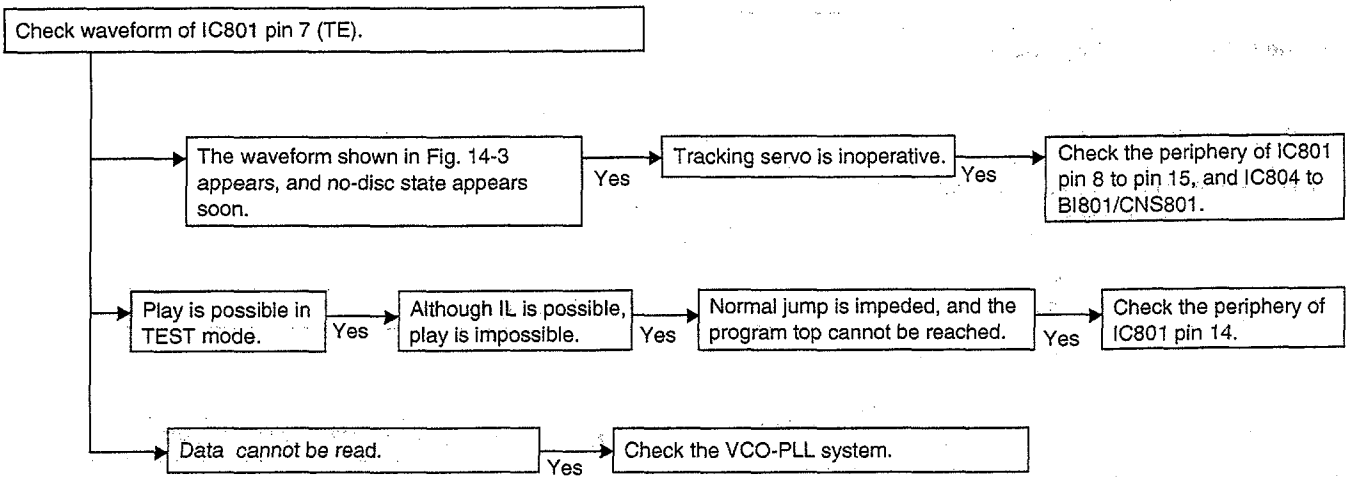


Figure 14-2

• Check the tracking system.


Check waveform of IC801 pin 7 (TE).
The waveform shown in Fig. 14-3 appears, and no-disc state appears soon.
Yes
Tracking servo is inoperative.
Yes
Check the periphery of IC801 pin 8 to pin 15, and IC804 to BI801/CNS801.
Play is possible in TEST mode.
Yes
Although IL is possible, play is impossible.
Yes
Normal jump is impeded, and the program top cannot be reached.
Yes
Check the periphery of IC801 pin 14.
Data cannot be read.
Yes
Check the VCO-PLL system.

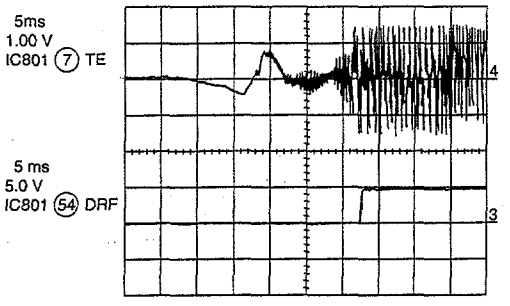


Figure 14-3

• Checking the spin system.

Play operation is performed without disc.

Yes

The turntable rotates a little. → Yes → The spin driver circuit is normal.

No

The turntable fails to rotate or rotates at high speed. → Yes → Check the periphery of IC801 pins 23 to 27, pin 39 and pin 40, IC802 pin 12 and pin 13, IC804 to BI803/CNS803.

• Checking the VCO-PLL system

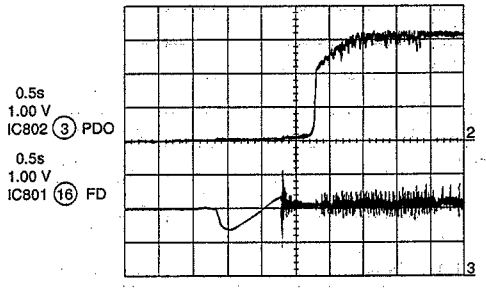
Play operation is performed when disc exits.

Yes

Although HF waveform is normal, TOC data cannot be read. → Yes → Check PDO waveform (Fig. 15).

Error

Check the IC801 pins 43 and 44, IC802 pins 3, 5, 7, 9 and 10.



Stop --> Play
As VCO frequency is locked at 4.32 M Hz, voltage of PDO rises and stabilizes.

Figure 15

• Although HF waveform is normal and the time indication is normal, no sound is emitted.

Check IC802 pin 48 (EFLG). → No → Usually, the number of pulses of flawless disc is 100 pulses/sec or less.

Yes

Check IC802 pins 37and 40.

Abnomal

Check the periphery of IC803 (OPAMP).

NOTES ON SCHEMATIC DIAGRAM

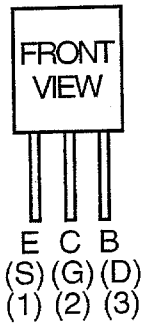
- Resistor:
  To differentiate the units of resistors, the symbol as K and M are used: the symbol K means 1000 ohm and the symbol M means 1000 kohm and the resistor without any symbol is an ohm resistor. The resistor designated "Fusible" is a fuse type resistor
- Capacitor:
  To indicate the unit of capacitor, a symbol P is used: this symbol P means micro-micro-farad and the unit of the capacitor without such a symbol is microfarad. As to electrolytic capacitor, the expression "capacitance/withstand voltage" is used.
  (CH), (TH), (RH), (UJ): Temperature compensation
  (ML): Mylar type
  (P.P.): Polypropylene type
- The indicated voltage in each section is the one measured by Digital Multimeter between such a section and the chassis with no signal given.

1. Tuner
   ( ): AM mode
   Marking except for ( ): FM mode
2. CD
   ( ): Play mode
   Marking except for ( ): Stop state
3. Deck section
   ( ): Record mode
   Marking except for ( ): Playback mode
   Display / Control section:
   ( ): Active state
   Marking except for ( ): CD Function mode at stop state

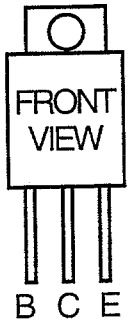
- Schematic diagram and Wiring Side of P.W.Board for this model are subject to change for improvement without prior notice.
- Parts marked with " ⚠ " (⊏ ⊐) are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

REF. NO	DESCRIPTION	POSITION
SW1	BAND [GX-CH170Z ONLY]	FM—SW2—SW1 —MW
SW4	PICKUP IN	ON—OFF
SW201	RECODE/PLAYBACK	R—P
SW251	DUBBING SPEED/BEAT CANCEL	NORMAL A— NORMAL B— HIGH C/A—B—C
SW253	BAND [GX-CH170X]	FM—AM
SW253	TAPE SELECTOR/FM MODE [GX-CH170Z]	NORMAL—CrO2/ FM STEREO— FM MONO
SW601	TAPE 1 MAIN	ON—OFF
SW602	TAPE 2 MAIN	ON—OFF
SW603	TAPE1/2 SELECTOR	ON—OFF
SW651	FUNCTION/REMOTO CONTROL	CD—TUNER— TAPE—OFF/ ON—OFF
SW701	POWER	ON—OFF

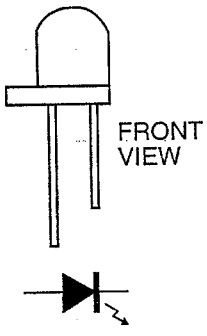
REF. NO	DESCRIPTION	POSITION
SW702	CD-STOP	ON—OFF
SW703	CD-PLAY	ON—OFF
SW704	CD-PAUSE	ON—OFF
SW705	CD-CUE	ON—OFF
SW706	CD-REVIEW	ON—OFF
SW707	CD-DISC 1-2	ON—OFF
SW708	CD-RANDOM	ON—OFF
SW709	VOLUME UP	ON—OFF
SW710	VOLUME DOWN	ON—OFF
SW711	CD-PROGRAM	ON—OFF
SW712	CD-CLEAR	ON—OFF
SW713	CD-TRAY1 OPEN/CLOSE	ON—OFF
SW714	CD-TRAY2 OPEN/CLOSE	ON—OFF
SW981	TRAY/MECHANISM UP	ON—OFF
SW982	TRAY1	1a—1b
SW983	TRAY2	2a—2b



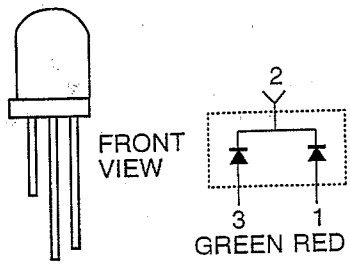
2SC2001 K
2SB561 C
2SB562 C
2SD468 C
KRA102 M
KRC102 M
KTA1266 GR
KTC3199 GR



2SD2394 F



3N4PDN32
3N4GDN32



3N8PGN33

Figure 16 TYPES OF TRANSISTOR AND LED

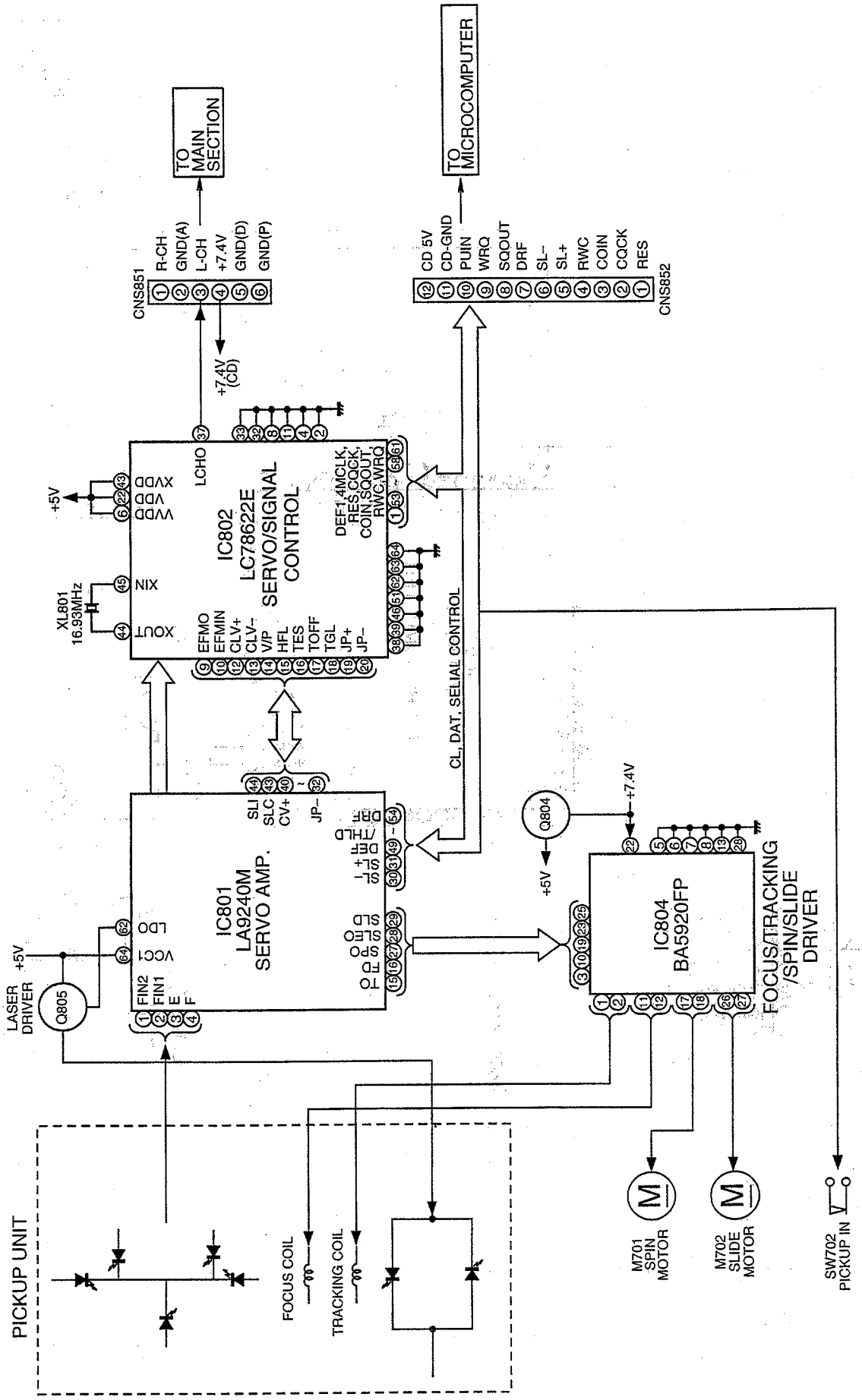


Figure 17 BLOCK DIAGRAM (1/3)

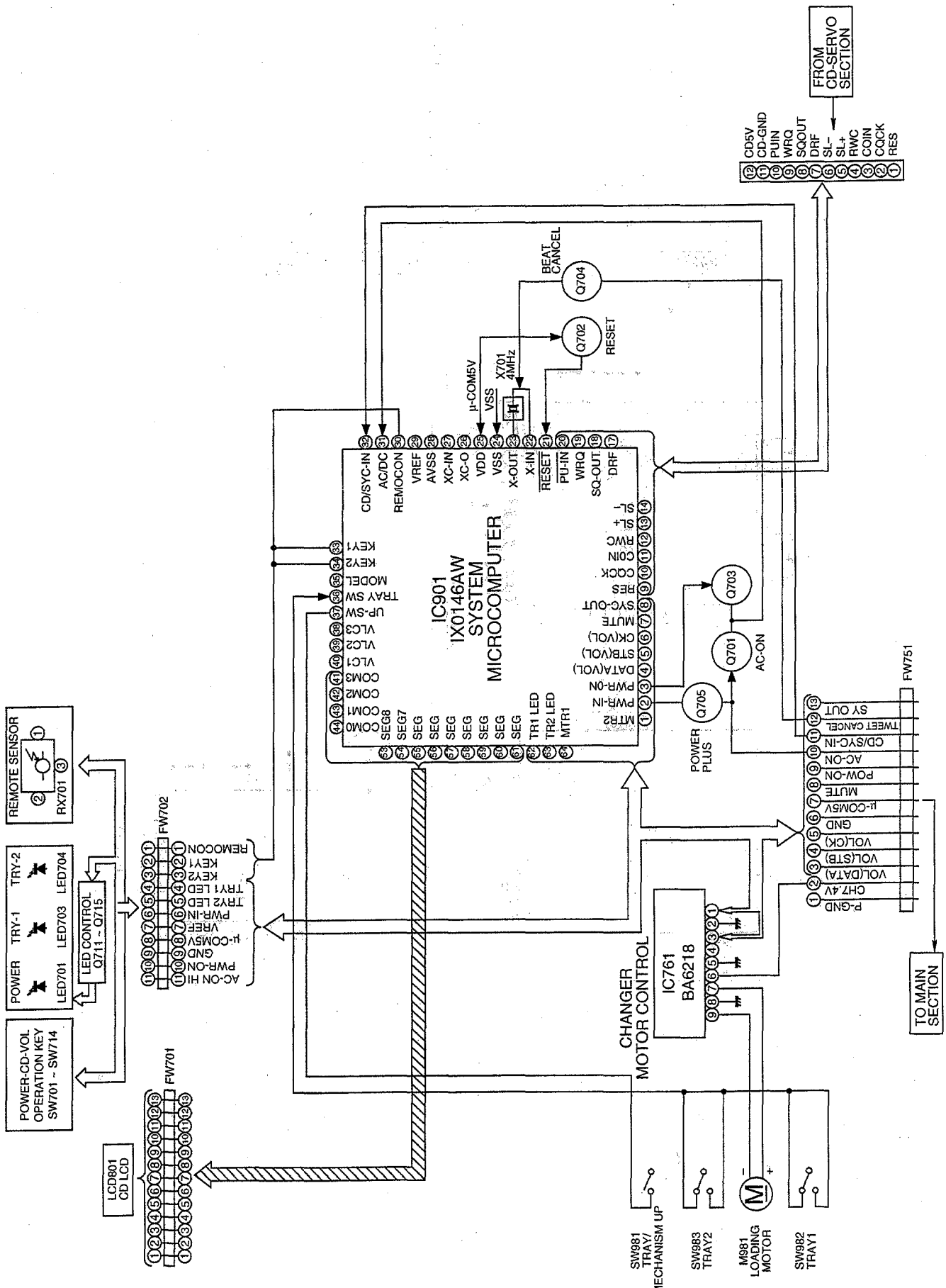


Figure 18 BLOCK DIAGRAM (2/3)

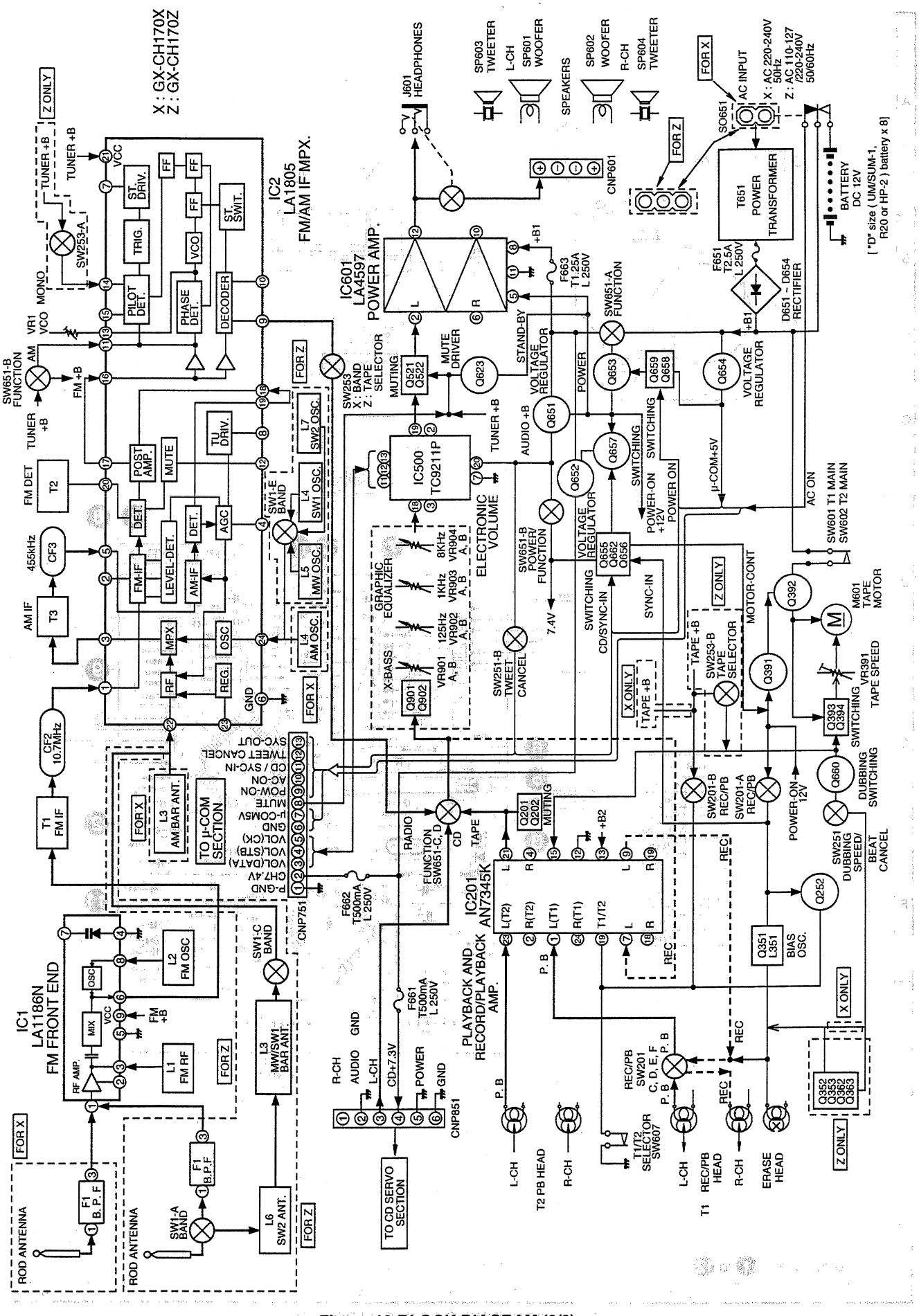
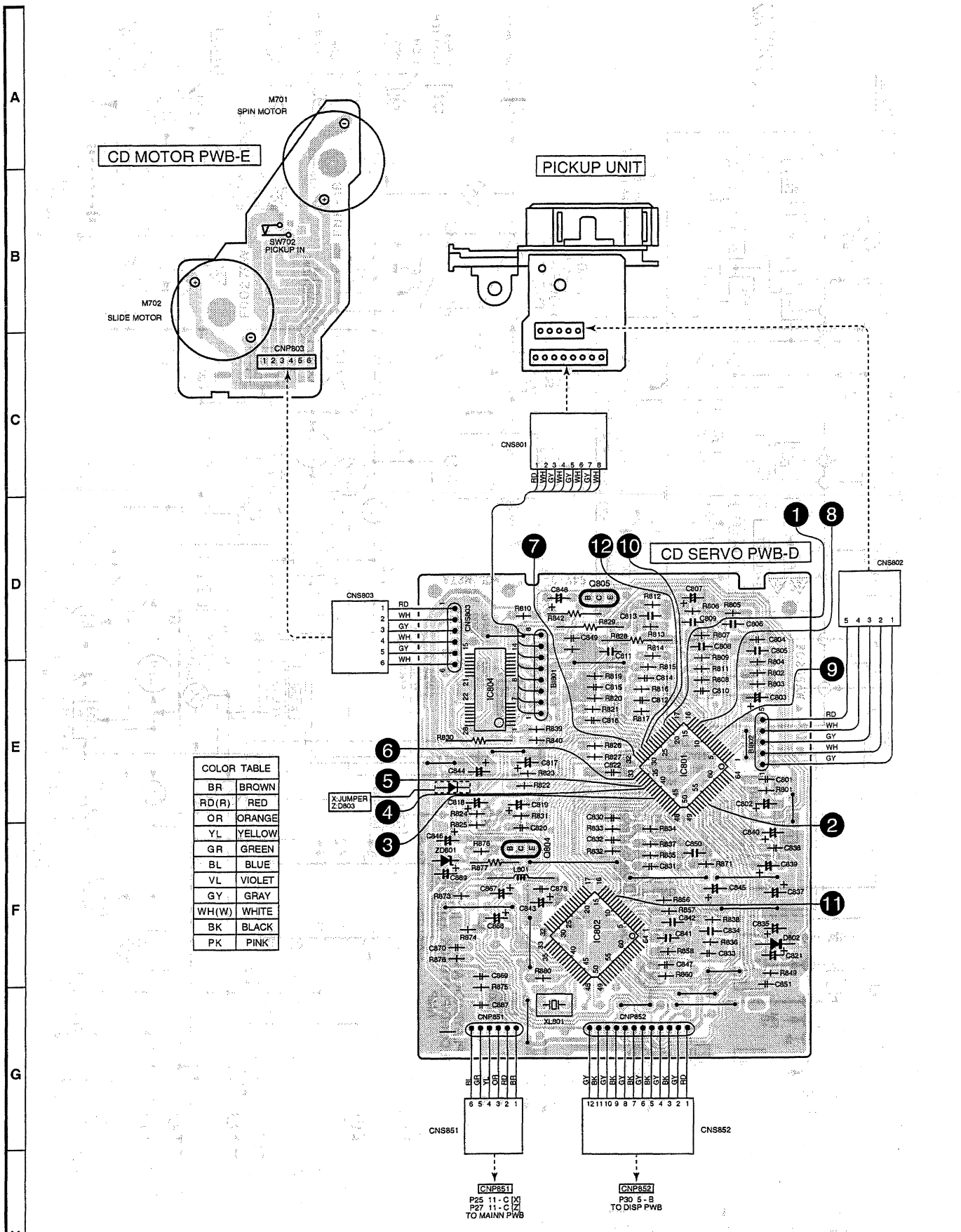
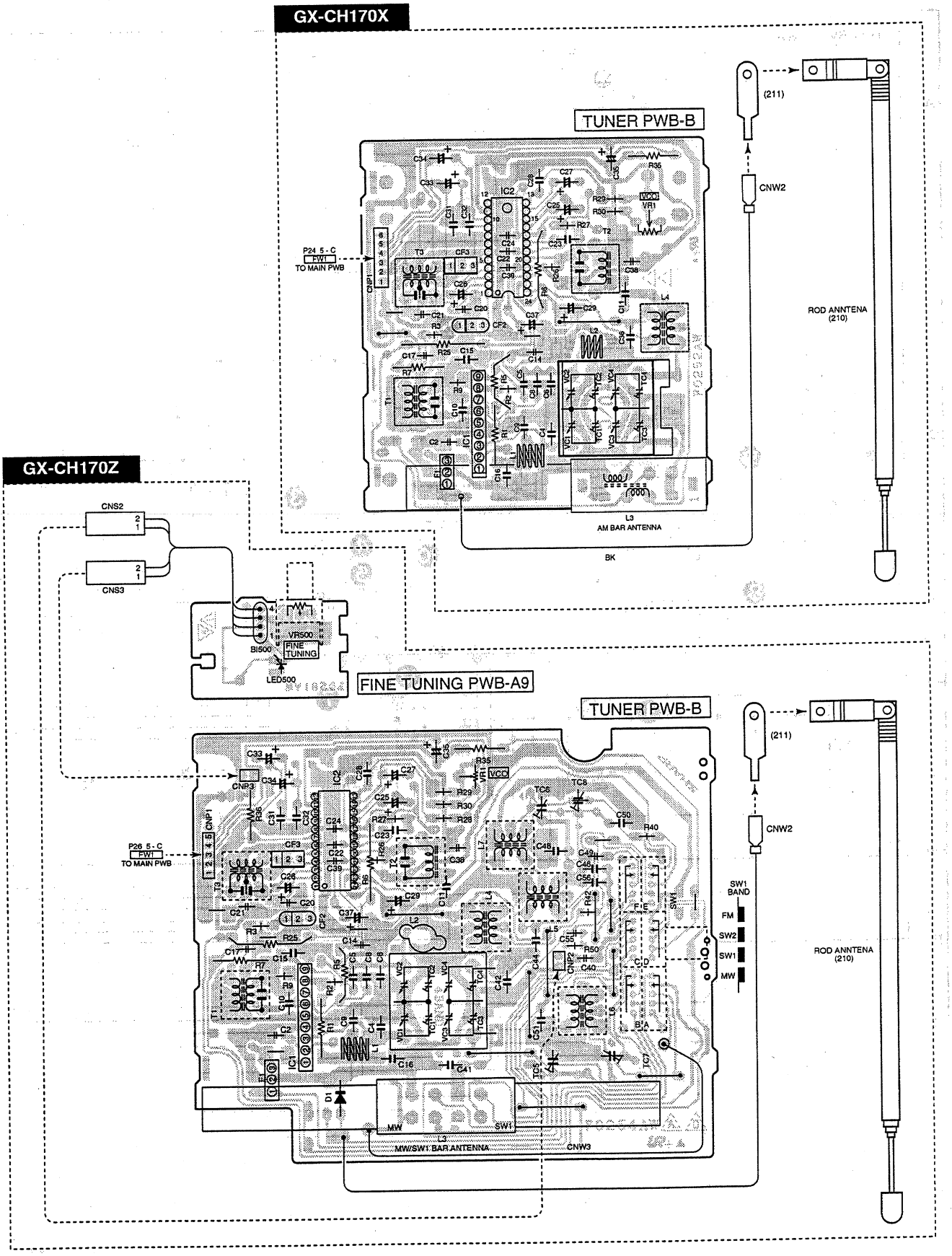


Figure 19 BLOCK DIAGRAM (3/3)



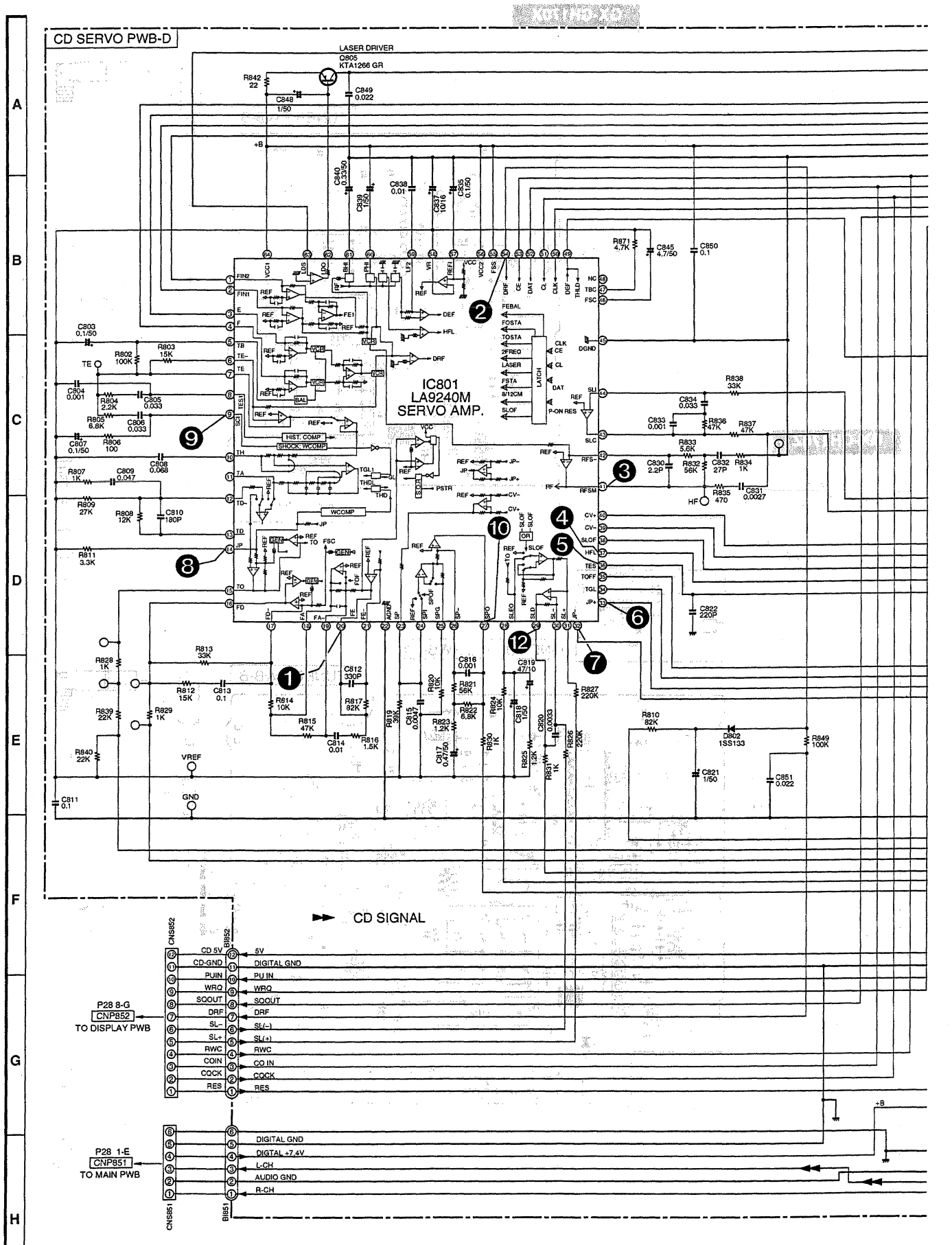
The numbers ❶ to ⓬ are waveform numbers shown in page 35.

Figure 20 WIRING OF P.W.BOARD (1/8)



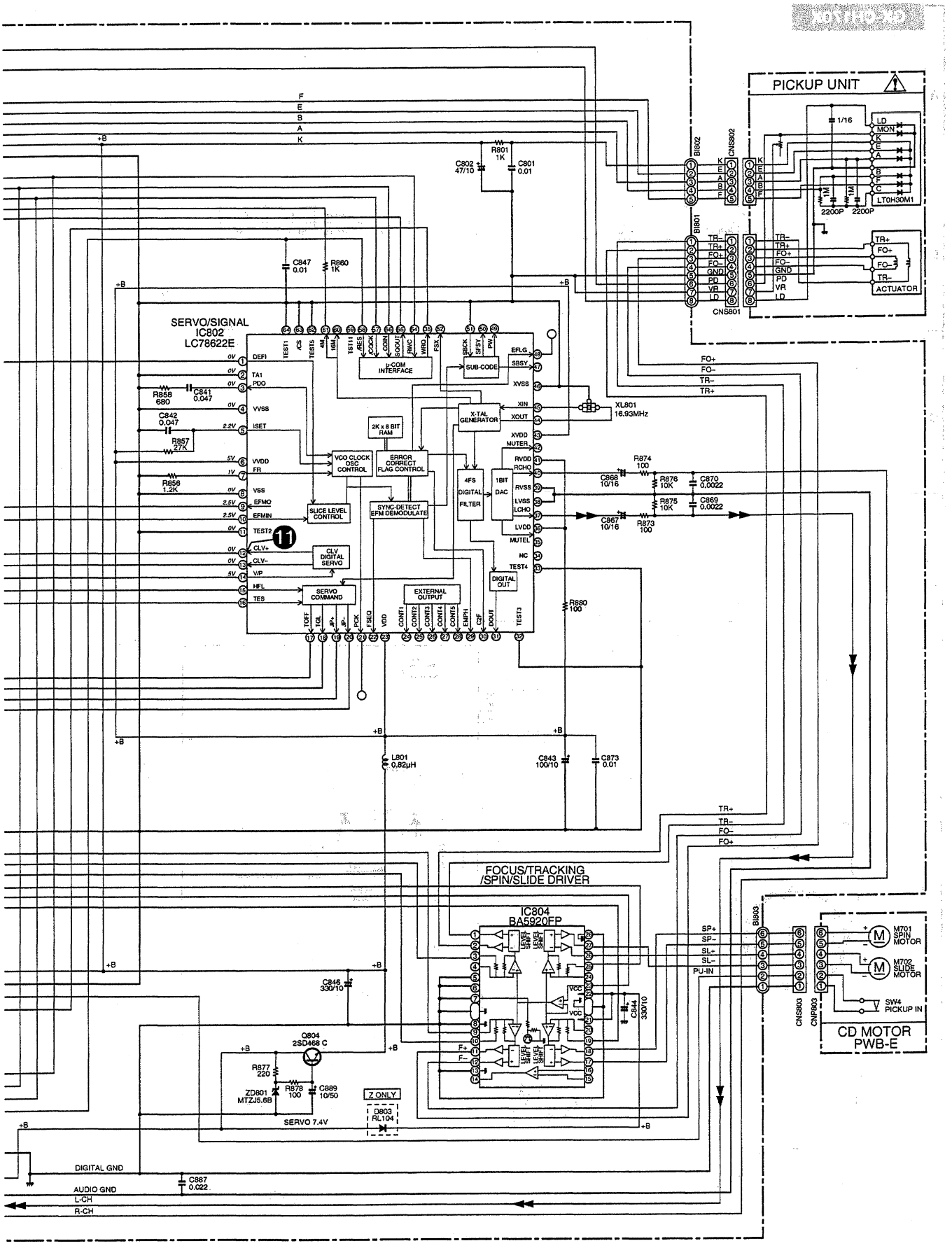
7	8	9	10	11	12

Figure 21 WIRING OF P.W.BOARD (2/8)



The numbers ❶ to ⓬ are waveform numbers shown in page 35.

Figure 22 SCHEMATIC DIAGRAM (1/7)



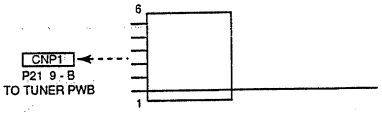
NOTES ON SCHEMATIC DIAGRAM can be found on page 16.

7	8	9	10	11	12

Figure 23 SCHEMATIC DIAGRAM (2/7)

GX-CH170X

COLOR	BR	RD(R)	OR	YL	GR	BL	VL	GY	WH(W)	BK	PK
TABLE	BROWN	RED	ORANGE	YELLOW	GREEN	BLUE	VIOLET	GRAY	WHITE	BLACK	PINK



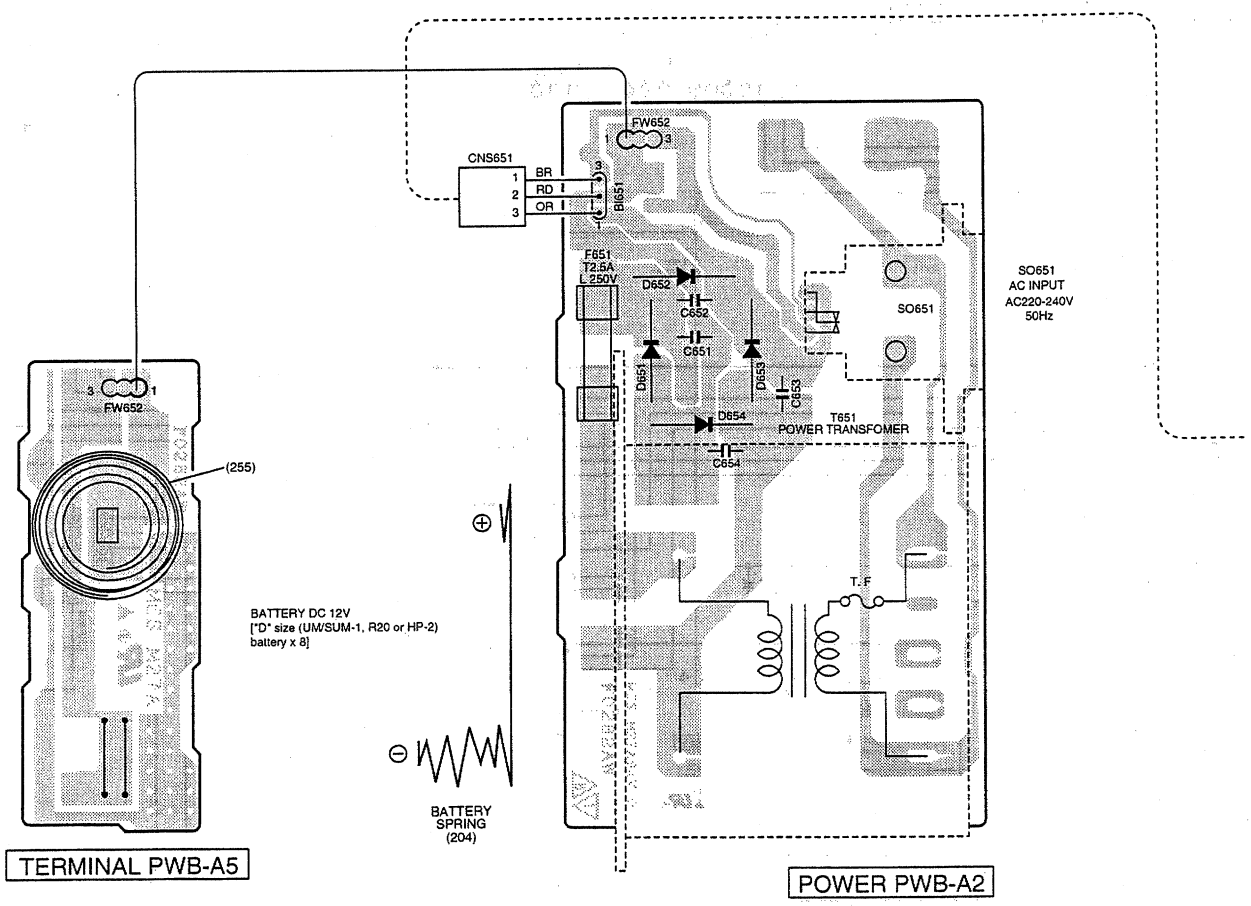
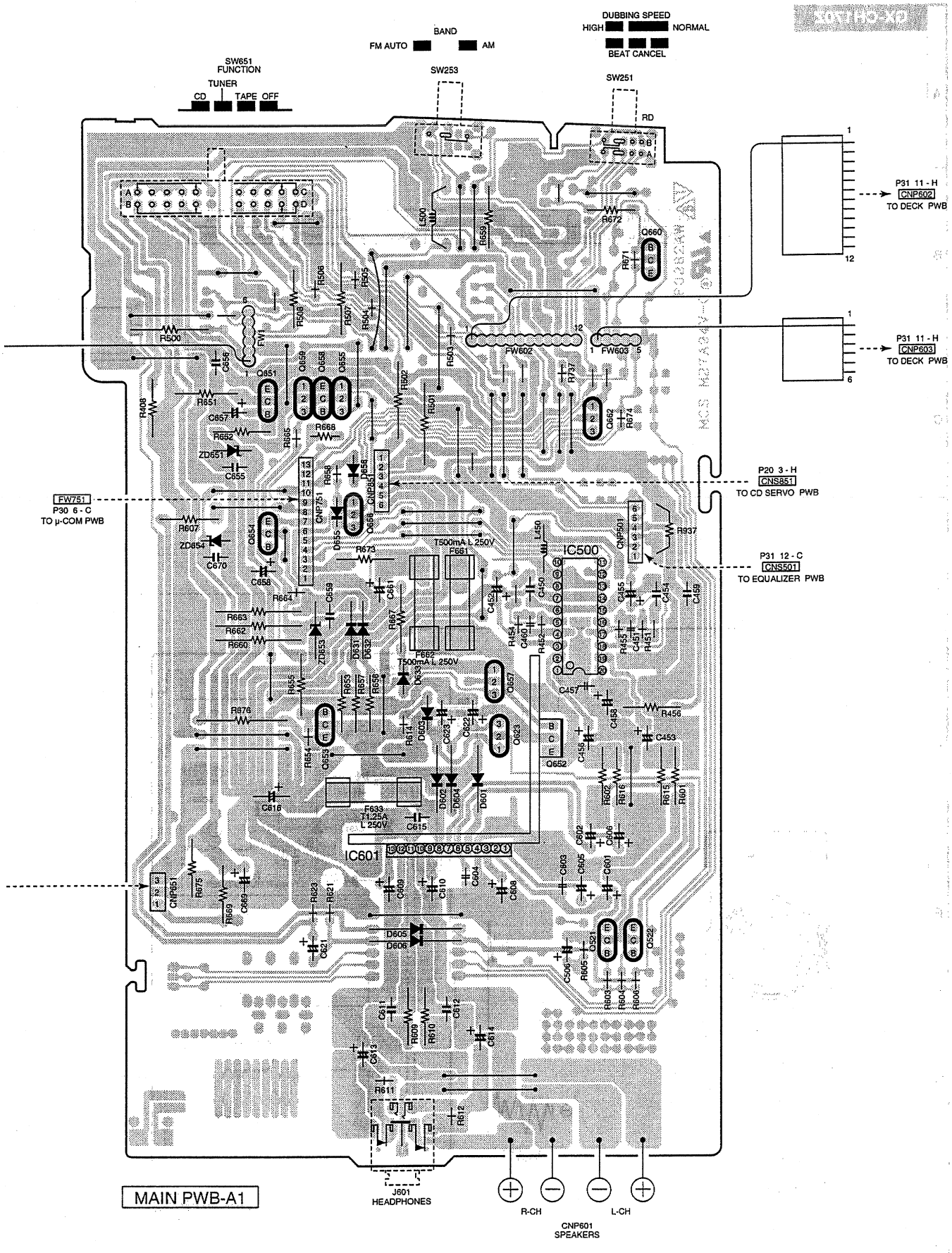


Figure 24 WIRING OF P.W.BOARD (3/8)



7	8	9	10	11	12

Figure 25 WIRING OF P.W.BOARD (4/8)

GX-CH170Z

COLOR	BR	RD(R)	OR	YL	GR	BL	VL	GY	WH(W)	BK	PK
TABLE	BROWN	RED	ORANGE	YELLOW	GREEN	BLUE	VIOLET	GRAY	WHITE	BLACK	PINK

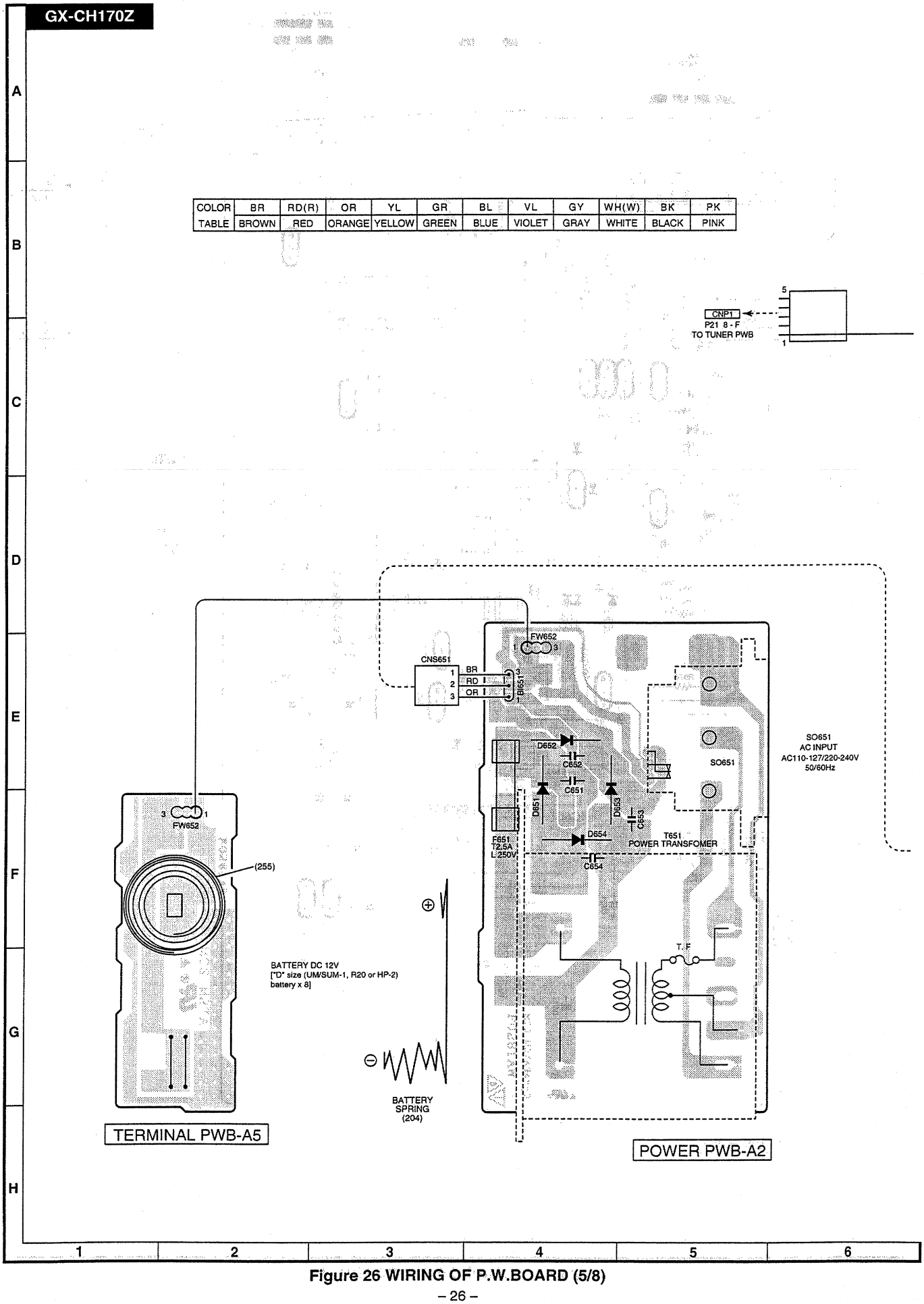
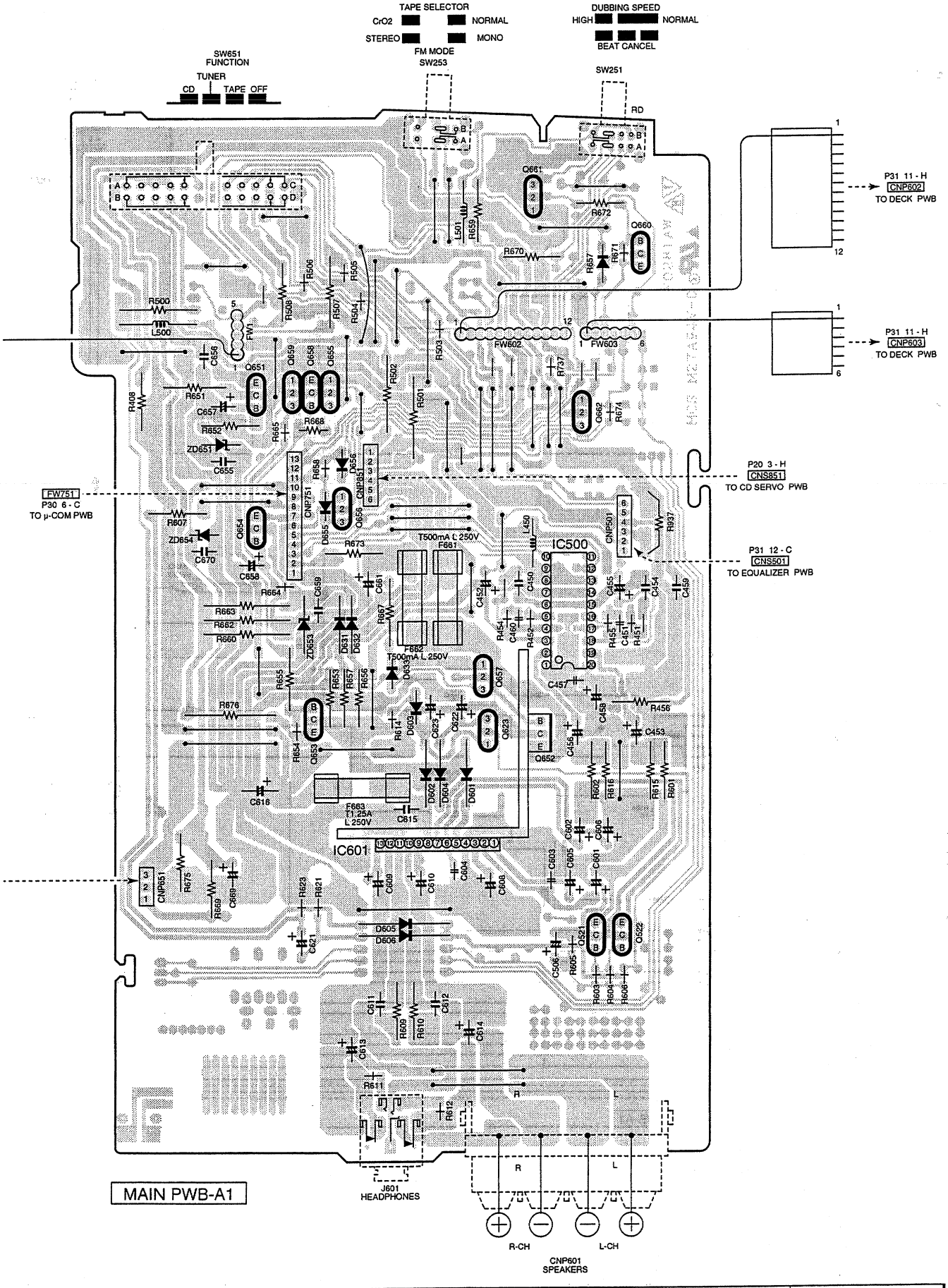
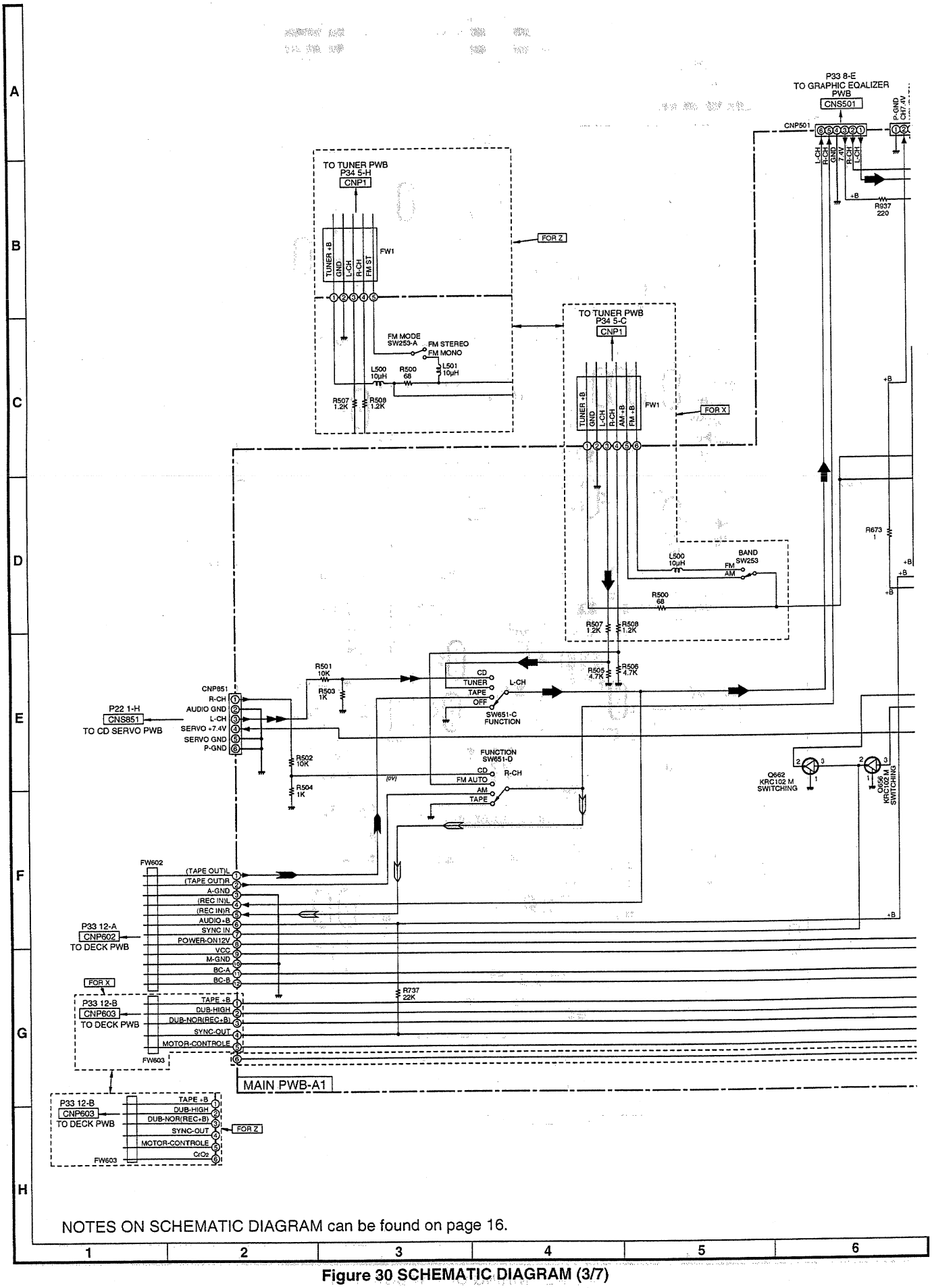


Figure 26 WIRING OF P.W.BOARD (5/8)



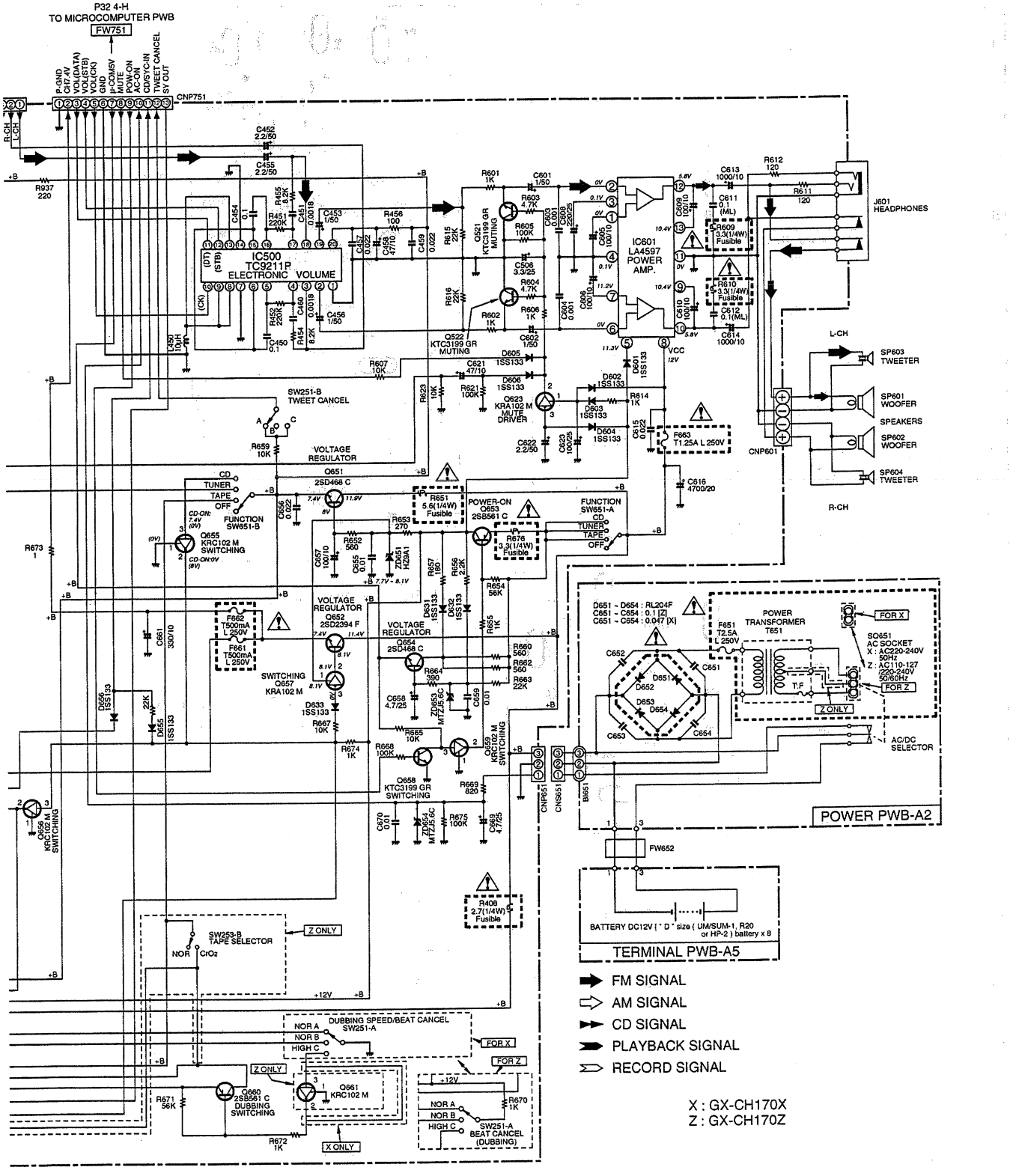
7	8	9	10	11	12

Figure 27 WIRING OF P.W.BOARD (6/8)



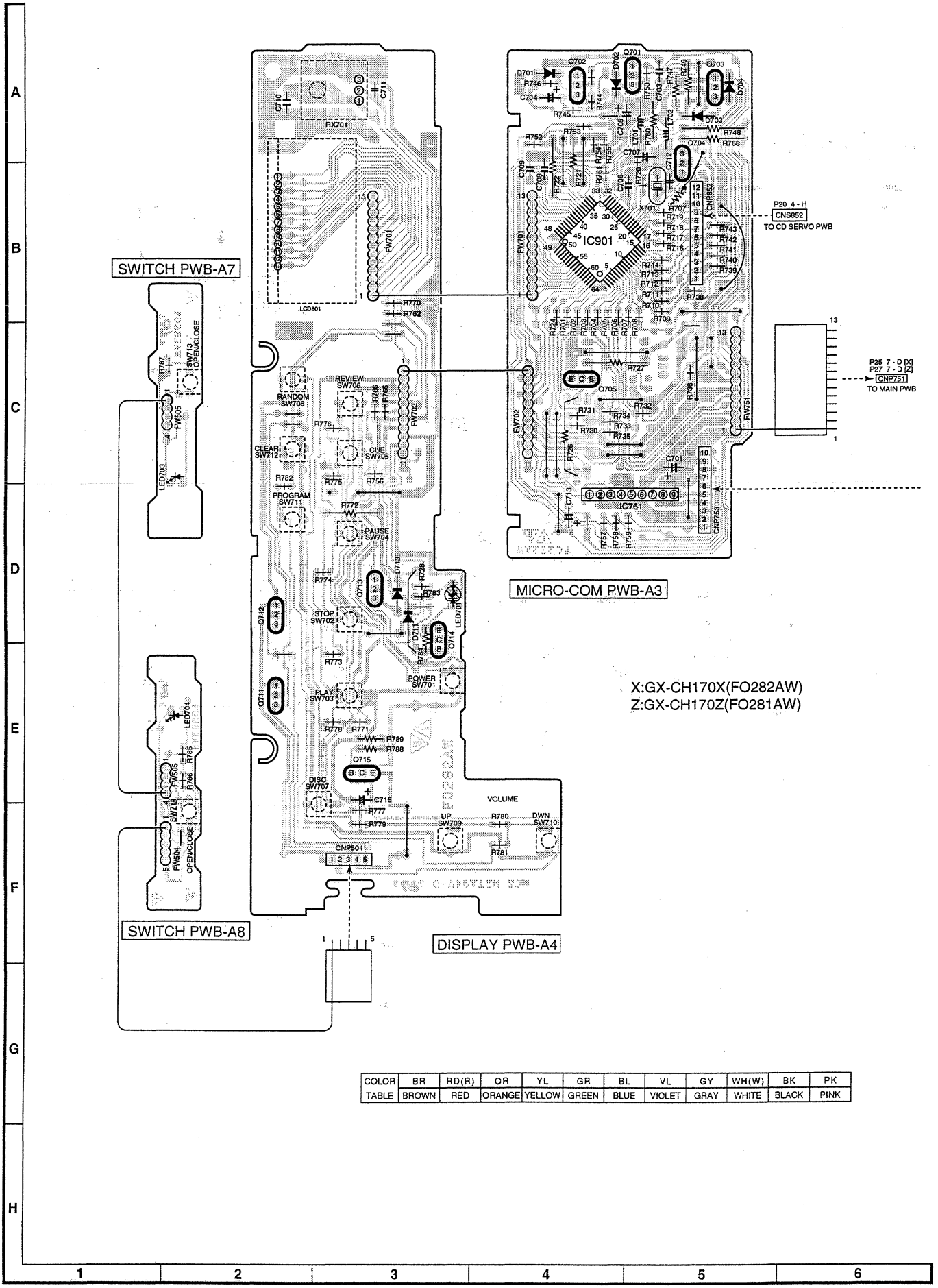
NOTES ON SCHEMATIC DIAGRAM can be found on page 16.

Figure 30 SCHEMATIC DIAGRAM (3/7)



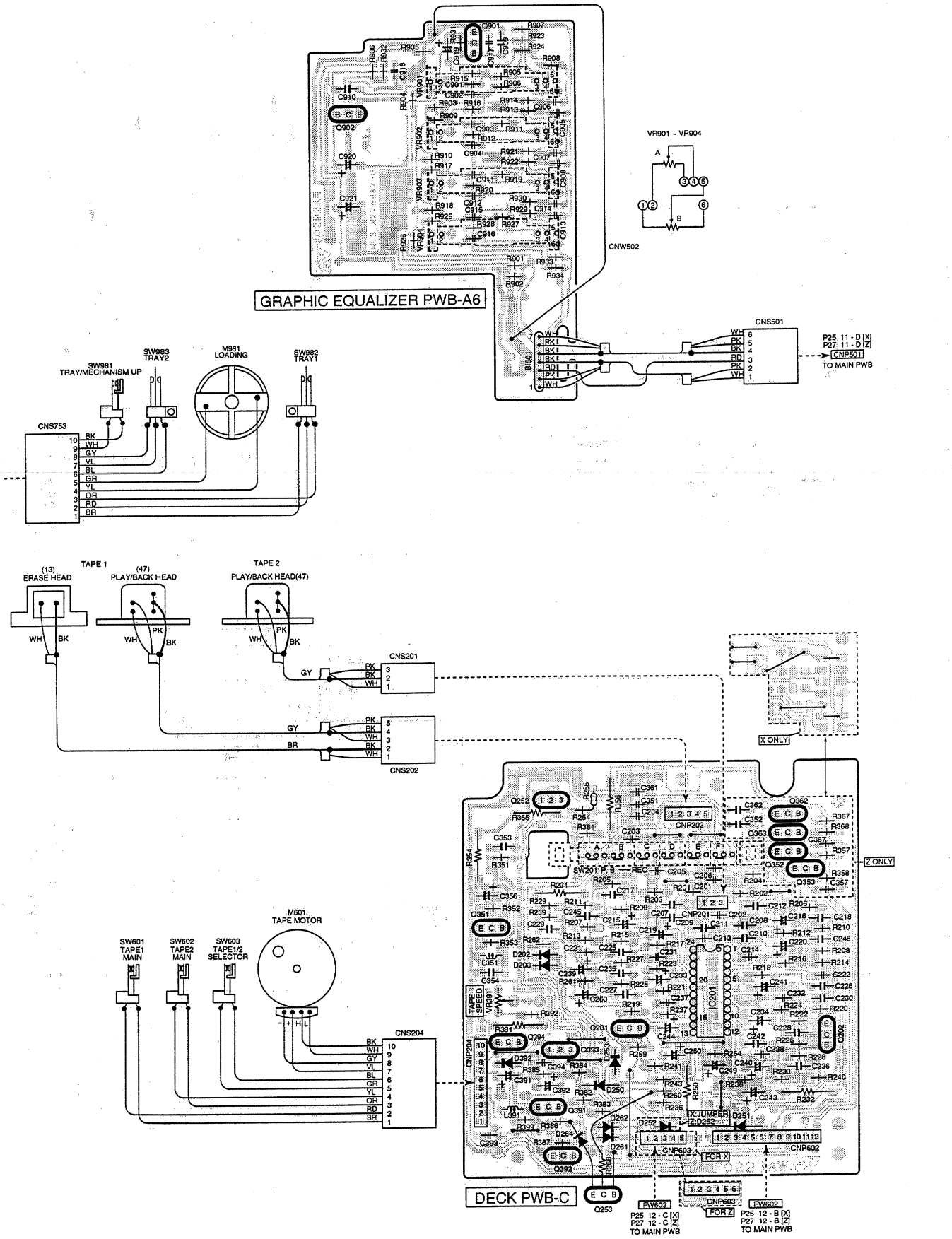
7	8	9	10	11	12

Figure 29 SCHEMATIC DIAGRAM (4/7)



COLOR	BR	RD(R)	OR	YL	GR	BL	VL	GY	WH(W)	BK	PK
TABLE	BROWN	RED	ORANGE	YELLOW	GREEN	BLUE	VIOLET	GRAY	WHITE	BLACK	PINK

Figure 30 WIRING OF P.W.BOARD (7/8)



7	8	9	10	11	12

Figure 31 WIRING OF P.W.BOARD (8/8)

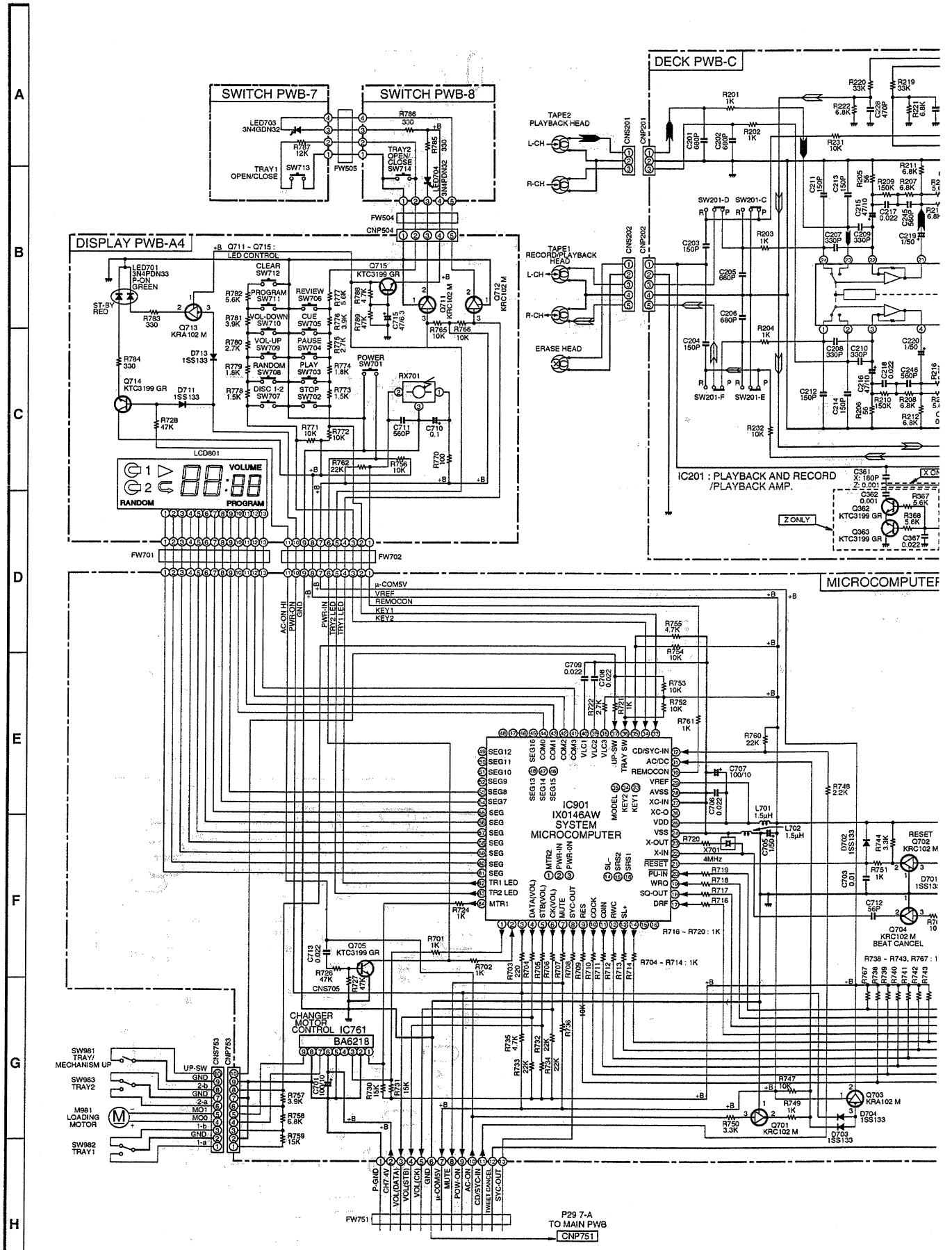
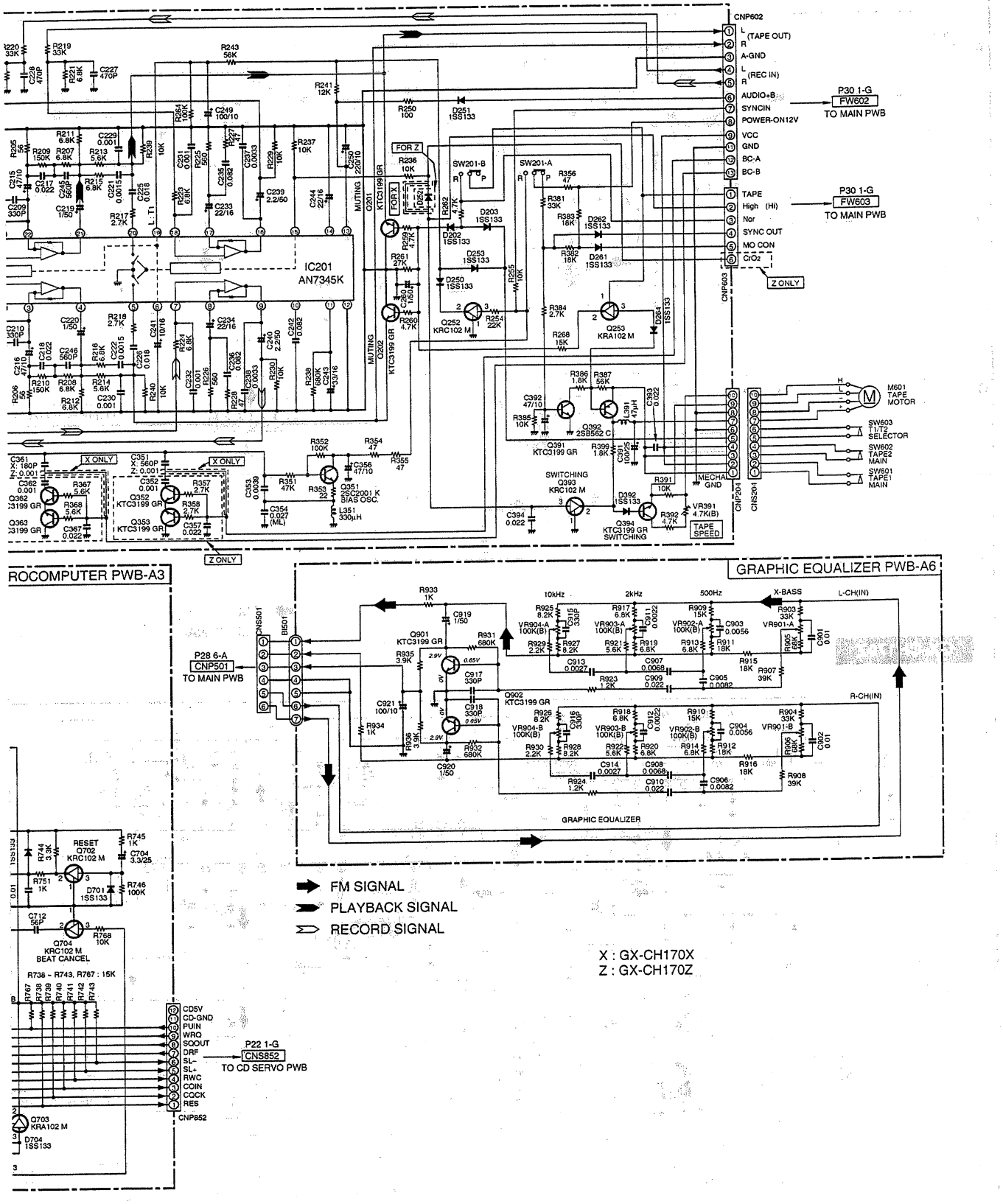


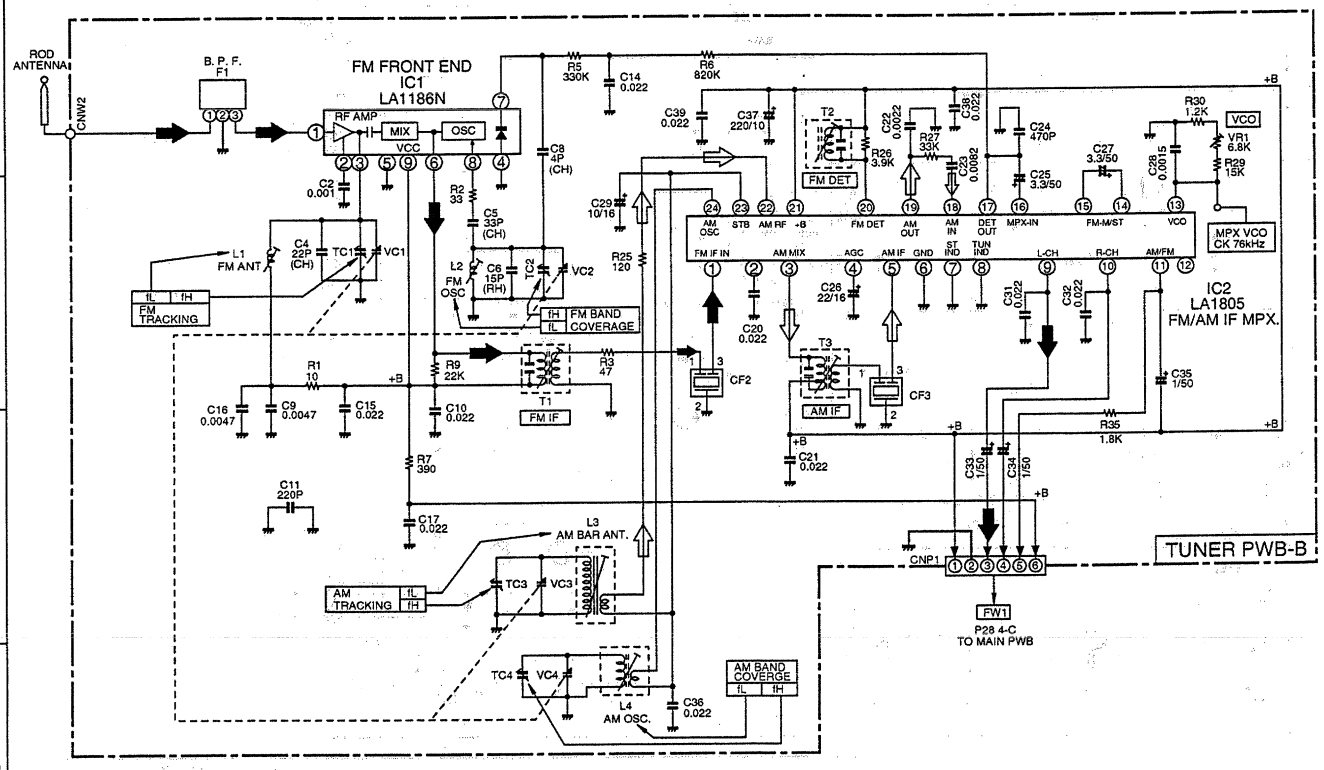
Figure 32 SCHEMATIC DIAGRAM (5/7)



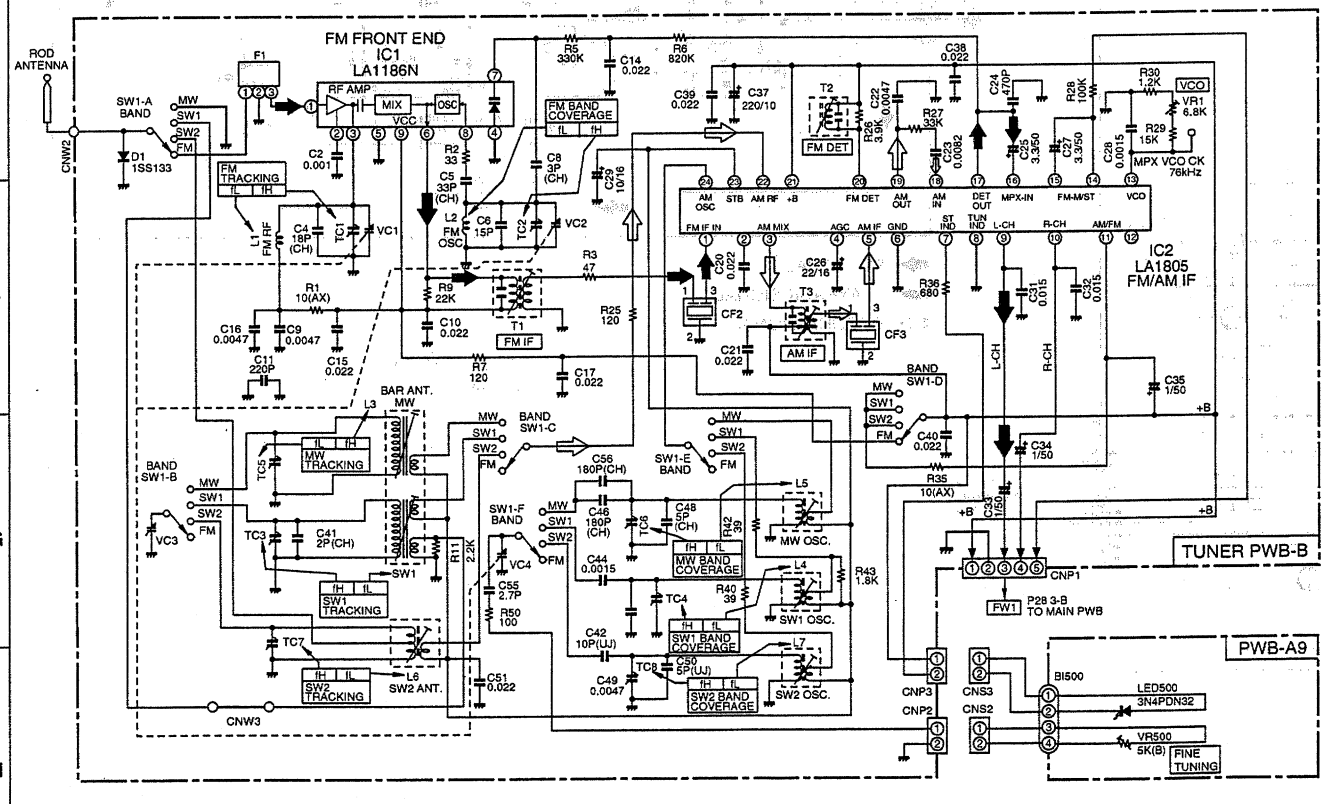
7	8	9	10	11	12

Figure 33 SCHEMATIC DIAGRAM (6/7)

GX-CH170X



GX-CH170Z



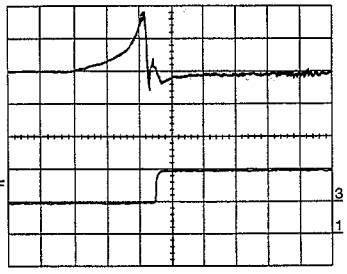
NOTES ON SCHEMATIC DIAGRAM can be found on page 16.

Figure 34 SCHEMATIC DIAGRAM (7/7)

WAVEFORMS OF CD CIRCUIT

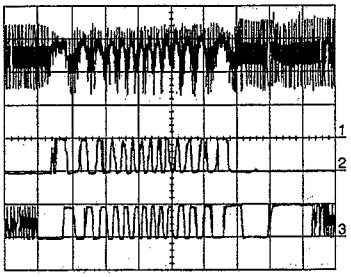
STOP → PLAY
FOCUS — SERCH

1 5ms 0.50 V IC801 (20) F.E
2 5ms 5.0 V IC801 (54) DRF



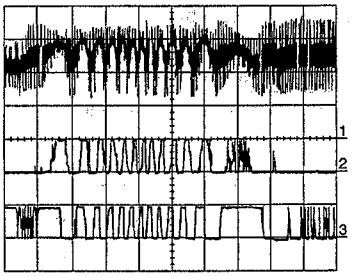
CUE

3 0.5ms 1.00 V HF
4 0.5ms 5.0 V HFL
5 0.5ms 5.0 V TES



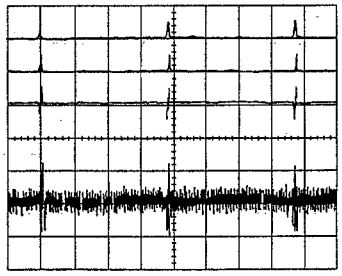
REVIEW

3 0.5ms 1.00 V H.F
4 0.5ms 5.0 V HFL
5 0.5ms 5.0 V TES

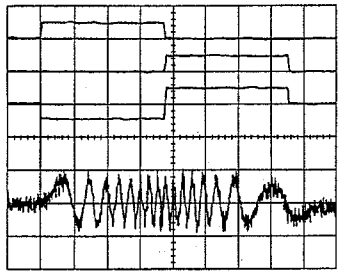


CUE

6 50ms 10.0 V JP+
7 50ms 10.0 V JP-
8 50ms 0.50 V JP
9 50ms 1.00 V TE

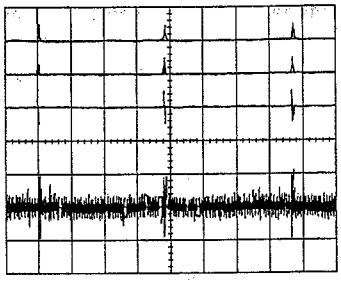


6 0.5ms 10.0 V JP+
7 0.5ms 10.0 V JP-
8 0.5ms 0.50 V JP
9 0.5ms 1.00 V TE

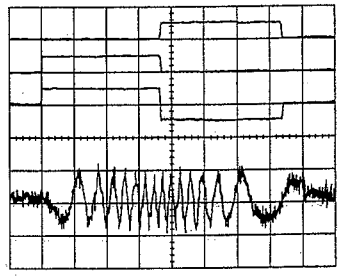


REVIEW

6 50ms 10.0 V JP+
7 50ms 10.0 V JP-
8 50ms 0.50 V JP
9 50ms 1.00 V TE

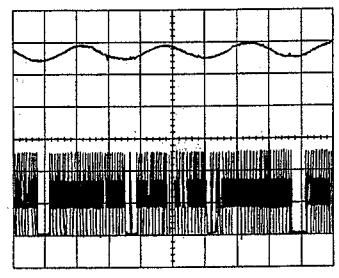


6 0.5ms 10.0 V JP+
7 0.5ms 10.0 V JP-
8 0.5ms 0.50 V JP
9 0.5ms 1.00 V TE



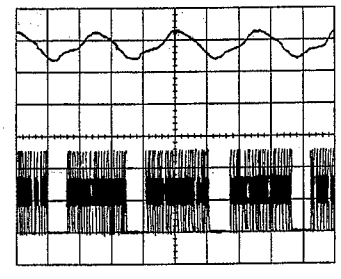
PLAY
NORMAL DISC
TN0=01

10 20ms 1.00 V SPO
11 20ms 2.00 V CLV+



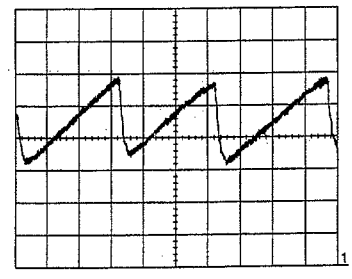
PLAY
TCD-712 (140mm)
TN0=01

10 50ms 1.00 V SPO
11 50ms 2.00 V CLV+

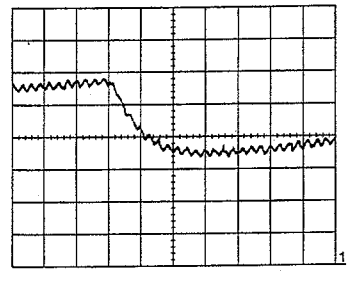


PLAY
TCD-712

12 5s 100mV SLD



12 0.5s 100mV SLD



FUNCTION TABLE OF IC

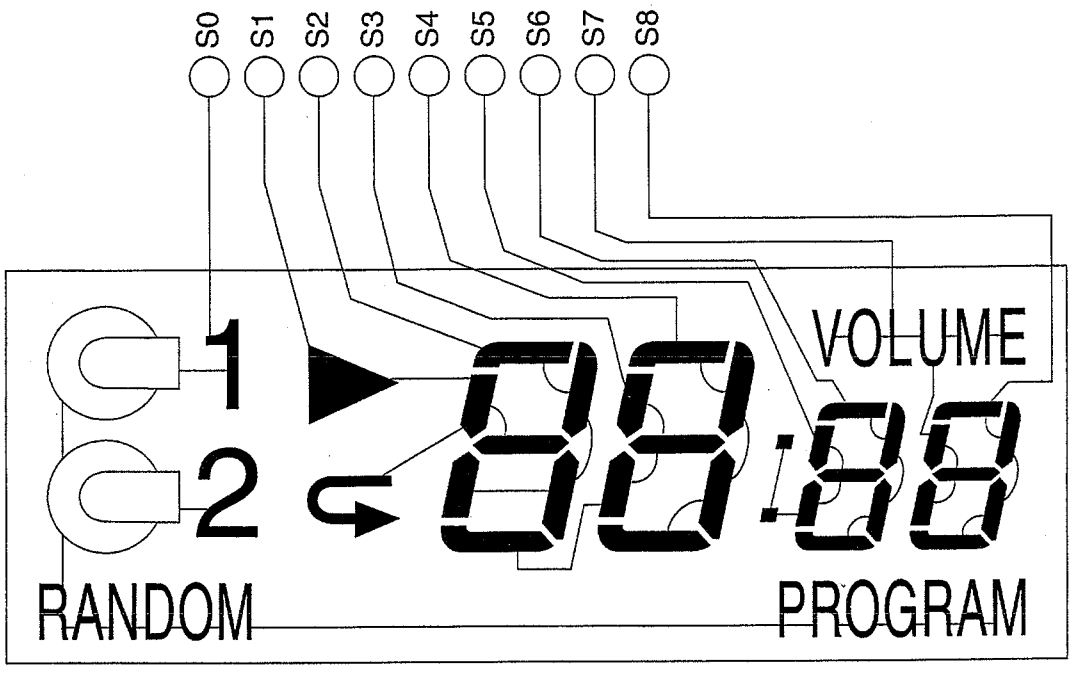
IC901 RH-iX0146AWZZ (IX0146AW): System Control Microcomputer

Pin No.	Terminal Name	Port Name	Input/ Output	Function
1	P03	MTCONT2	Output	Changer mechanism motor control output No.2.
2	P10	POWER IN	Input	Power key input.
3	D0	POWER ON	Output	"L" when power is turned on.
4	P12	DATA(VOL)	Output	Electronic volume data.
5	P13	STB(VOL)	Output	Volume change after data fetching.
6	P11	CK(VOL)	Output	Electronic volume data fetch timing signal.
7	D1	MUTE	Output	System mute signal output. For audio signal muting
8	D2	SYNC OUT	Output	Deck motor control output. "H" when REC is required for CD function.
9	D3	RES	Output	Reset output.
10	D4	CQCK	Output	Serial data sync clock for interface.
11	D5	COIN	Output	Servo control signal processing IC command output.
12	D6/CNTR0	RWC	Output	READ/WRITE control output. (from microcomputer)
13	D7/CNTR1	SL+	Output	Slide motor feed output.
14	D8/INT0/ZEROX	SL-	Output	Slide motor return output. SL+/SL- combination control. Track count monitor
15*	D9/SCK/RTP0	SRS2	Output	Surround control output 2.
16*	D10/SOUT/ RTP1/PWM	SRS1	Output	Surround control output 1. Surround control with SRS1 and 2. However, since Surround has three positions, "H, H" is not used.
17	P20/SIN	DRF	Intput	HF level detection input.
18	P21/INT1	SQOUT	Input	Sub-code Q data input.
19	P22	WRQ	Input	Detection input for sub-Q code output standby. Disc deceleration signal monitor. Track count monitor.
20	P23	PU IN	Input	CD pickup position detection. Innermost periphery: "L"
21	$\overline{\text{RESET}}$	$\overline{\text{RESET}}$	Input	If "L" state is held for more than 0.75 usec (one machine cycle), reset state isset (in case of 4 MHz oscillation).
22	X IN	X IN	Input	Main clock input.
23	X OUT	X OUT	Output	Main clock output.
24	VSS	D GND	—	Power terminal GND (0V)
25	VDD	D +5V	—	Power terminal +5V
26	XCOUT	SU CLOUT	Output	Sub-clock output.
27	XCIN	SU CLIN	Input	Sub-clock input
28	AVSS	ADGND	—	A/D converter reference voltage GND terminal (0V is applied)
29	VREF	AD +5V	—	A/D converter reference voltage input terminal. Applied voltage must be not lower than 2V but not higher than VDD.
30	SEG26/P30/ INT2/AIN0	REMOCON	Input	Remote control signal input. To be detected at fall edge.
31	SEG25/P31/AIN1	AC/DC	Input	AC/DC discrimination port. AC: "L" DC: "H"
32	SEG24/P32/AIN2	CD FUNC/ SYNC-IN	Input	Function/REC detection.
33	SEG23/P33/AIN3	KEY1	Input	Operation key input No.1.
34	SEG22/P40/AIN4	KEY2	Input	Operation key input No.2.
35	SEG21/P41/AIN5	MODEL	Input	Model discrimination when power is turned on.
36	SEG20/P42/AIN6	TRAY SW	Input	Changer mechanism switch input. 5-position analog input.
37	SEG19/P43/AIN7	UP/LID SW	Input	Open TOP type: LID SW port. Changer type: Mechanism UP SW port.
38	VLC3	VLC3	Input	LCD bias setting power terminal.
39	SEG18/VLC2	VLC2	Input	Internal divided resistor is connected. 1/3 bias, 1/4 duty
40	SEG17/VLC1	VLC1	Input	Internal divided resistor is connected.
41-44	COM3-COM0	COM3-COM0	Output	LCD control common terminal (1/4 duty).
45-61 (45*-52*)	SEG16-SEG0	SEG16-SEG0	Output	LCD control segment terminal.
62	P00	TR1 LED	Output	For CD changer validity indication. For output tray No.1.
63	P01	TR2 LED	Output	For CD changer validity indication. For output tray No.2.
64	P02	MTCONT1	Output	Changer mechanism motor control output No.1.

In this unit, the terminal with asterisk mark (*) is (open) terminal which is not connected to the outside.

LCD801 RV-LX0020AWZZ

SEGMENT



COMMON

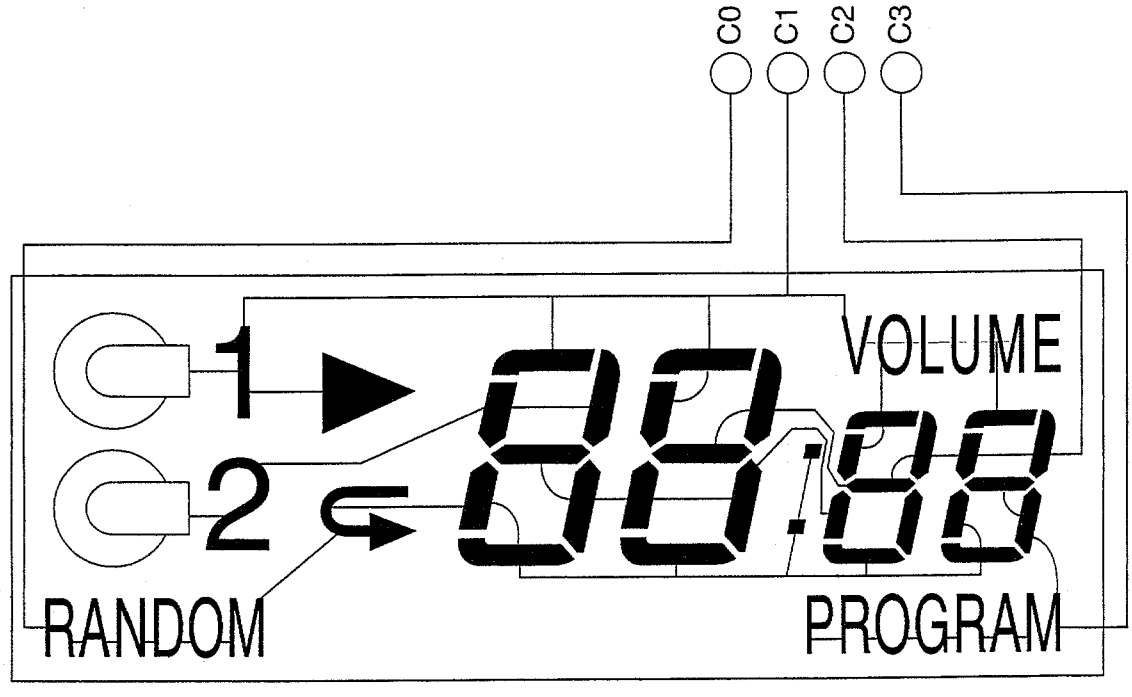
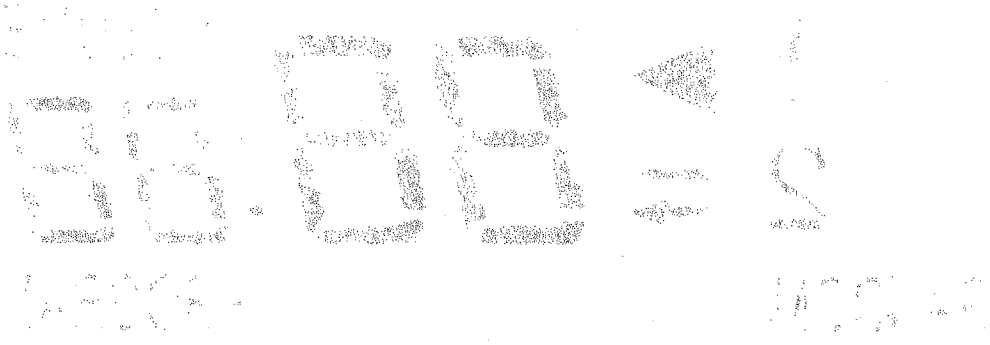
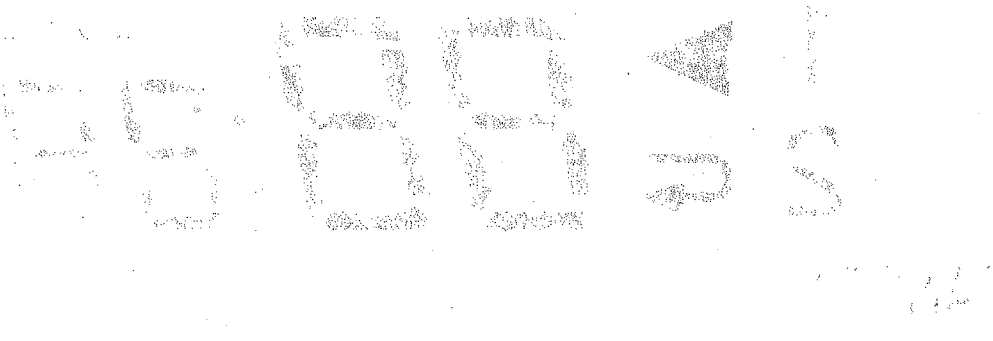


Figure 37 LCD SEGMENT

—MEMO—





GX-CH170X/CH170Z

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
INTEGRATED CIRCUITS				
IC1	VHILA1186N/-1	J	AE	FM Front End,LA1186N
IC2	VHILA1805//-1	J	AM	FM/AM IF MPX.,LA1805
IC201	VHIAN7345K/-1	J	AM	Playback and Record/ Playback Amp.,AN7345K
IC500	VHITC9211P/-1	J	AS	Electronic Volume,TC9211P
IC601	VHILA4597//-1	J	AH	Power Amp.,LA4597
IC761	VHIBA6218//-1	J	AH	Changer Motor Control,BA6218
IC801	VHILA9240M/-1	J	AV	Servo Amp.,LA9240M
IC802	VHILC78622E-1	J	BA	Servo/Signal Control,LC78622E
IC804	VHIBA5920FP-1	J	AR	Focus/Tracking/Spin/Slide Driver,BA5920FP
IC901	RH-IX0146AWZZ	J	AV	System,Microcomputer, IX0146AW
TRANSISTORS				
Q201,202	VSKTC3199GR-1	J	AB	Digital,NPN,KTC3199 GR
Q252	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M
Q253	VSKRA102M//-1	J	AC	Digital,PNP,KRA102 M
Q351	VS2SC2001-K-1	J	AD	Silicon,NPN,2SC2001 K
Q352,353	VSKTC3199GR-1	J	AB	Digital,NPN,KTC3199 GR [Z Only]
Q362,363	VSKTC3199GR-1	J	AB	Digital,NPN,KTC3199 GR [Z Only]
Q391	VSKTC3199GR-1	J	AB	Digital,NPN,KTC3199 GR
Q392	VS2SB562C//-1	J	AC	Silicon,PNP,2SB562 C
Q393	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M
Q394	VSKTC3199GR-1	J	AB	Digital,NPN,KTC3199 GR
Q521,522	VSKTC3199GR-1	J	AB	Digital,NPN,KTC3199 GR
Q623	VSKRA102M//-1	J	AC	Digital,PNP,KRA102 M
Q651	VS2SD468-C/-1	J	AD	Silicon,NPN,2SD468 C
Q652	VS2SD2394F/-1	J	AE	Silicon,NPN,2SD2394 F
Q653	VS2SB561-C/-1	J	AC	Silicon,PNP,2SB561 C
Q654	VS2SD468-C/-1	J	AD	Silicon,NPN,2SD468 C
Q655,656	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M
Q657	VSKRA102M//-1	J	AC	Digital,PNP,KRA102 M
Q658	VSKTC3199GR-1	J	AB	Digital,NPN,KTC3199 GR
Q659	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M
Q660	VS2SB561-C/-1	J	AC	Silicon,PNP,2SB561 C
Q661	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M [Z Only]
Q662	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M
Q701,702	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M
Q703	VSKRA102M//-1	J	AC	Digital,PNP,KRA102 M
Q704	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M
Q705	VSKTC3199GR-1	J	AB	Digital,NPN,KTC3199 GR
Q711,712	VSKRC102M//-1	J	AC	Digital,NPN,KRC102 M
Q713	VSKRA102M//-1	J	AC	Digital,PNP,KRA102 M
Q714	VSKTC3199GR-1	J	AB	Digital,NPN,KTC3199 GR
Q715	VSKTC3199GR-1	J	AB	Digital,NPN,KTC3199 GR
Q804	VS2SD468-C/-1	J	AD	Silicon,NPN,2SD468 C
Q805	VSKTA1266GR-1	J	AB	Silicon,PNP,KTA1266 GR
Q901,902	VSKTC3199GR-1	J	AB	Digital,NPN,KTC3199 GR
DIODES				
D1	VHD1SS133//-1	J	AA	Silicon,1SS133 [Z Only]
D202,203	VHD1SS133//-1	J	AA	Silicon,1SS133
D250,251	VHD1SS133//-1	J	AA	Silicon,1SS133
D252	VHD1SS133//-1	J	AA	Silicon,1SS133 [Z Only]
D253	VHD1SS133//-1	J	AA	Silicon,1SS133
D261,262	VHD1SS133//-1	J	AA	Silicon,1SS133
D264	VHD1SS133//-1	J	AA	Silicon,1SS133
D392	VHD1SS133//-1	J	AA	Silicon,1SS133
D601~606	VHD1SS133//-1	J	AA	Silicon,1SS133
D631~633	VHD1SS133//-1	J	AA	Silicon,1SS133
⚠D651~654	VHDRL204F//-1	J	AC	Silicon,RL204F
D655,656	VHD1SS133//-1	J	AA	Silicon,1SS133
D701~704	VHD1SS133//-1	J	AA	Silicon,1SS133
D711	VHD1SS133//-1	J	AA	Silicon,1SS133
D713	VHD1SS133//-1	J	AA	Silicon,1SS133
D802	VHD1SS133//-1	J	AA	Silicon,1SS133
D803	VHDRL104A//-1	J	AB	Silicon,RL104A [Z Only]
LED500	92LLED3N4PDN32	J	AC	LED,Red,3N4PDN32 [Z Only]
LED701	VHP3N8PGN33-1	J	AE	LED,Red/Green,3N8PGN33
LED703	92LLED3N4GDN32	J	AD	LED,Green,3N4GDN32
LED704	92LLED3N4PDN32	J	AC	LED,Red,3N4PDN32
ZD651	VHEHZ9A1///-1	J	AB	Zener,9V,HZ9A1
ZD653,654	VHEMTZJ5R6C-1	J	AB	Zener,5.6V,MTZJ5.6C
ZD801	VHEMTZJ5R6B-1	J	AD	Zener,5.6V,MTZJ5.6B

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
FILTERS				
CF2	92LFILT-F1342A	J	AD	FM IF
CF3	RFILA0006AWZZ	J	AG	AM IF [X]
CF3	RFILA0007AWZZ	J	AG	AM IF [Z]
F1	92LFILTF1759AT	J	AD	FM Band Pass Filter
TRANSFORMERS				
T1	RCILI0007AWZZ	J	AD	FM IF [SERIAL No.60500001~607xxxxx]
T1	RCILI0012AWZZ	J		FM IF [SERIAL No.608xxxxx~]
T2	RCILI0008AWZZ	J	AF	FM Detection [SERIAL No.60500001~607xxxxx]
T2	RCILI0013AWZZ	J		FM Detection [SERIAL No.608xxxxx~]
T3	RCILI0010AWZZ	J	AF	AM IF [Z]
T3	RCILI0014AWZZ	J	AE	AM IF [X]
⚠T651	RTRNP0091AWZZ	J	AZ	Power
COILS				
L1	RCILR0364AFZZ	J	AA	FM RF
L2	RCILB0020AWZZ	J	AA	FM Oscillation [X]
L2	RCILB0628AFZZ	J	AC	FM Oscillation [Z]
L3	RCILA0048AWZZ	J		MW/SW1 Bar Antenna [Z]
L3	RCILA0053AWZZ	J	AK	AM Bar Antenna [X]
L4	RCILB0047AWZZ	J		SW1 Oscillation [Z]
L4	RCILB0051AWZZ	J	AE	AM Oscillation [X]
L5	RCILB0053AWZZ	J	AC	MW Oscillation [Z Only]
L6	RCILA0556AFZZ	J	AD	SW2 Antenna [Z Only]
L7	RCILB0048AWZZ	J		SW2 Oscillation [Z Only]
L351	VP-MK331K0000	J	AB	330 µH,Choke
L391	VP-YF470K0000	J	AB	47 µH,Choke
L450	VP-DH100K0000	J	AB	10 µH,Choke
L500	VP-DH100K0000	J	AB	10 µH,Choke
L501	VP-DH100K0000	J	AB	10 µH,Choke [Z Only]
L701,702	VP-XH1R5K0000	J	AB	1.5 µH,Choke
L801	VP-XHR82K0000	J	AC	0.82 µH,Choke
VARIABLE RESISTORS				
VR1	92LVRS682NBUT	J	AC	6.8 kohms (B),Semi-VR [VCO]
VR391	92LVRS472NBUT	J	AD	4.7 kohms (B),Semi-VR [Tape Speed]
VR500	RVR-B0011AWZZ	J		5 kohms (B),Semi-VR [Fine Tuning] [Z Only]
VR901	92LVRS1788B	J	AE	100 kohm (B),Semi-VR[X-BASS]
VR902~904	92LVRS1788A	J	AE	100 kohm (B),Semi-VR [Graphic Equalizer]
VARIABLE CAPACITORS				
TC5~8	92LTO-1527AT	J	AF	Trimmer,20 pF [Z Only]
VC1-4	92LVC-1455A	J	AN	Variable Capacitor with Trimmers (TC1~4) [X]
VC1-4	92LVC-197A	J	AS	Variable Capacitor with Trimmers (TC1~4) [Z]
VIBRATORS				
X701	RCRM-0009AWZZ	J	AF	Ceramic,4.000 MHz
XL801	RCRM-0008AWZZ	J	AF	Ceramic,16.93 MHz
CAPACITORS				
C2	VCKYMN1HB102K	J	AA	0.001 µF,50V
C4	VCCCPA1HH180J	J	AA	18 pF (CH),50V [Z]
C4	VCCCPA1HH220J	J	AA	22 pF (CH),50V [X]
C5	VCCCPA1HH330J	J	AA	33 pF (CH),50V
C6	VCCRPA1HH150J	J	AA	15 pF (RH),50V
C8	VCCCPA1HH3R0C	J	AA	3 pF (CH),50V [Z]
C8	VCCCPA1HH4R0C	J	AA	4 pF (CH),50V [X]
C9	VCTYPA1EX472M	J	AA	0.0047 µF,25V
C10	VCTYPA1EX223M	J	AA	0.022 µF,25V
C11	VCKYPA1HB221K	J	AA	220 pF,50V
C14	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C15	VCTYPA1EX223M	J	AA	0.022 µF,25V
C16	VCTYPA1EX472M	J	AA	0.0047 µF,25V
C17	VCTYMN1EF223Z	J	AA	0.022 µF,25V

SHARP PARTS GUIDE

MODEL GX-CH170X
GX-CH170Z

"HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following information.

1. MODEL NUMBER
2. REF. No.
3. PART NO.
4. DESCRIPTION

★ MARK: SPARE PARTS-DELIVERY SECTION

For U.S.A. only

Contact your nearest SHARP Parts Distributor to order.

For location of SHARP Parts Distributor,
Please call Toll-Free;
1-800-BE-SHARP

Explanation of capacitors/resistors parts codes

Capacitors

VCC ..... Ceramic type
VCK ..... Ceramic type
VCT ..... Semiconductor type
VC • • MF ..... Cylindrical type (without lead wire)
VC • • MN ..... Cylindrical type (without lead wire)
VC • • TV ..... Square type (without lead wire)
VC • • TQ ..... Square type (without lead wire)
VC • • CY ..... Square type (without lead wire)
VC • • CZ ..... Square type (without lead wire)
VC • • • • • • • • • J .. The 13th character represents capacity difference.
("J" ±5%, "K" ±10%, "M" ±20%, "N" ±30%,
"C" ±0.25 pF, "D" ±0.5 pF, "Z" +80-20%.)

If there are no indications for the electrolytic capacitors, error is ±20%.

Resistors

VRD ..... Carbon-film type
VRS ..... Carbon-film type
VRN ..... Metal-film type
VR • • MF ..... Cylindrical type (without lead wire)
VR • • MN ..... Cylindrical type (without lead wire)
VR • • TV ..... Square type (without lead wire)
VR • • TQ ..... Square type (without lead wire)
VR • • CY ..... Square type (without lead wire)
VR • • CZ ..... Square type (without lead wire)
VR • • • • • • • • • J .. The 13th character represents error.
("J" ±5%, "F" ±1%, "D" ±0.5%.)

If there are no indications for other parts, the resistors are ±5% carbon-film type.

NOTE:
Parts marked with "⚠" are important for maintaining the safety of the set.
Be sure to replace parts with specified ones for maintaining the safety and performance of the set.

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
C20,21	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C22	VCTYMN1CX222K	J	AA	0.0022 µF,16V [X]
C22	VCTYMN1CX472K	J	AA	0.0047 µF,16V [Z]
C23	VCTYPA1EX822M	J	AA	0.0082 µF,25V
C24	VCKYMN1HB471K	J	AA	470 pF,50V
C25	RC-GZA335AF1H	J	AB	3.3 µF,50V,Electrolytic
C26	RC-GZA226AF1C	J	AB	22 µF,16V,Electrolytic
C27	RC-GZA335AF1H	J	AB	3.3 µF,50V,Electrolytic
C28	92LCPU100V1500	J	AC	0.0015 µF,100V
C29	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C31,32	VCTYPA1EX153M	J	AA	0.015 µF,25V [Z]
C31,32	VCTYPA1EX223M	J	AA	0.022 µF,25V [X]
C33∼35	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C36	VCTYPA1EX223M	J	AA	0.022 µF,25V [X Only]
C37	RC-GZA227AF1A	J	AB	220 µF,10V,Electrolytic
C38,39	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C40	VCTYMN1EF223Z	J	AA	0.022 µF,25V [Z Only]
C41	VCCCPA1HH2R0C	J	AA	2 pF (CH),50V [Z Only]
C42	VCCUPA1HJ100J	J	AB	10 pF (UJ),50V [Z Only]
C44	VCKYPA1HB152K	J	AA	0.0015 µF,50V [Z Only]
C46	VCCCPA1HH181J	J	AA	180 pF (CH),50V [Z Only]
C48	VCCUPA1HJ5R0C	J	AA	5 pF (UJ),50V [Z Only]
C49	VCTYMN1CX472K	J	AA	0.0047 µF,16V [Z Only]
C50	VCCUPA1HJ5R0C	J	AA	5 pF (UJ),50V [Z Only]
C51	VCTYPA1EX223M	J	AA	0.022 µF,25V [Z Only]
C55	VCCCMN1HH2R7C	J	AA	2.7 pF (CH),50V [Z Only]
C56	VCCCPA1HH181J	J	AA	180 pF (CH),50V [Z Only]
C201,202	VCKYMN1HB681K	J	AA	680 pF,50V
C203,204	VCKYMN1HB151K	J	AA	150 pF,50V
C205,206	VCKYMN1HB681K	J	AA	680 pF,50V
C207∼210	VCKYPA1HB331K	J	AA	330 pF,50V
C211,212	VCKYPA1HB151K	J	AA	150 pF,50V
C213,214	VCKYMN1HB151K	J	AA	150 pF,50V
C215,216	RC-GZA476AF1A	J	AB	47 µF,10V,Electrolytic
C217,218	VCTYPA1EX223K	J	AA	0.022 µF,25V
C219,220	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C221,222	VCTYMN1CX152K	J	AA	0.0015 µF,16V
C225,226	VCTYPA1EX183K	J	AA	0.018 µF,25V
C227,228	VCKYPA1HB471K	J	AA	470 pF,50V
C229,230	VCKYPA1HB102K	J	AA	0.001 µF,50V
C231,232	VCKYMN1HB102K	J	AA	0.001 µF,50V
C233,234	RC-GZA226AF1C	J	AB	22 µF,16V,Electrolytic
C235,236	VCTYPA1CX823K	J	AB	0.082 µF,16V
C237,238	VCTYMN1CX332K	J	AA	0.0033 µF,16V
C239,240	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic
C241	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C242	VCTYPA1EX823K	J	AB	0.082 µF,25V
C243	RC-GZA336AF1C	J	AB	33 µF,16V,Electrolytic
C244	RC-GZA226AF1C	J	AB	22 µF,16V,Electrolytic
C245,246	VCKYPA1HB561K	J	AA	560 pF,50V
C249	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C250	RC-GZA227AF1A	J	AB	220 µF,10V,Electrolytic
C260	RC-GZA107AF1H	J	AC	100 µF,50V,Electrolytic
C351	VCKYMN1HB102K	J	AA	0.001 µF,50V [Z]
C351	VCKYMN1HB561K	J	AA	560 pF,50V [X]
C352	VCKYPA1HB102K	J	AA	0.001 µF,50V [Z Only]
C353	VCQPKA2AA392J	J	AB	0.0039 µF,100V,Polypropylene
C354	RC-QZA273AFYJ	J	AB	0.027 µF,50V,Mylar
C356	RC-GZA476AF1A	J	AB	47 µF,10V,Electrolytic
C357	VCTYMN1EF223Z	J	AA	0.022 µF,25V [Z Only]
C361	VCKYMN1HB181K	J	AA	180 pF,50V
C362	VCKYMN1HB102K	J	AA	0.001 µF,50V [Z Only]
C367	VCTYMN1EF223Z	J	AA	0.022 µF,25V [Z Only]
C391	RC-GZA107AF1E	J	AB	100 µF,25V,Electrolytic
C392	RC-GZA476AF1A	J	AB	47 µF,10V,Electrolytic
C393,394	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C450	VCTYPA1CX104M	J	AB	0.1 µF,16V
C451	VCTYMN1CX182K	J	AA	0.0018 µF,16V
C452	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic
C453	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C454	VCTYPA1CX104M	J	AB	0.1 µF,16V
C455	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic
C456	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C457	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C458	RC-GZA476AF1A	J	AB	47 µF,10V,Electrolytic
C459	VCKZPA1HF223Z	J	AA	0.022 µF,50V
C460	VCTYMN1CX182K	J	AA	0.0018 µF,16V
C506	RC-GZA335AF1E	J	AB	3.3 µF,25V,Electrolytic
C601,602	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C603,604	VCKYMN1HB102K	J	AA	0.001 µF,50V
C605,606	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C608	RC-GZA227AF1E	J	AB	220 µF,25V,Electrolytic

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
C609,610	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C611,612	RC-QZA104AFYJ	J	AC	0.1 µF,50V,Mylar
C613,614	RC-GZV108AF1A	J	AD	1000 µF,10V,Electrolytic
C615	VCKZPA1HF223Z	J	AA	0.022 µF,50V
C616	92LCEU20W4700M	J	AH	4700µF,20V
C621	RC-GZA476AF1A	J	AB	47 µF,10V,Electrolytic
C622	RC-GZA225AF1H	J	AB	2.2 µF,50V,Electrolytic
C623	RC-GZA107AF1E	J	AB	100 µF,25V,Electrolytic
C651∼654	VCFYDA1HA104J	J	AB	0.1 µF,50V [Z]
C651∼654	VCFYDA1HA473J	J	AB	0.047 µF,50V [X]
C655	VCKZPA1HF103Z	J	AA	0.01 µF,50V
C656	VCKZPA1HF223Z	J	AA	0.022 µF,50V
C657	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C658	RC-GZA475AF1E	J	AB	4.7 µF,25V,Electrolytic
C659	VCKZPA1HF103Z	J	AA	0.01 µF,50V
C661	RC-GZA337AF1A	J	AB	330 µF,10V,Electrolytic
C669	RC-GZA475AF1E	J	AB	4.7 µF,25V,Electrolytic
C670	VCKZPA1HF103Z	J	AA	0.01 µF,50V
C701	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C703	VCTYPA1CX103M	J	AA	0.01 µF,16V
C704	RC-GZA335AF1E	J	AB	3.3 µF,25V,Electrolytic
C705	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C706	VCTYPA1CX223K	J	AA	0.022 µF,16V
C707	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C708,709	VCTYPA1CX223K	J	AA	0.022 µF,16V
C710	VCTYPA1CX104M	J	AB	0.1 µF,16V
C711	VCKYMN1HB561K	J	AA	560 pF,50V
C712	VCCSMN1HL560J	J	AA	56 pF,50V
C713	VCTYPA1CX223K	J	AA	0.022 µF,16V
C715	RC-EZY476AF0J	J	AB	47 µF,6.3V,Electrolytic
C801	VCTYMN1CY103N	J	AA	0.01 µF,16V
C802	RC-GZA476AF1A	J	AB	47 µF,10V,Electrolytic
C803	RC-GZA104AF1H	J	AB	0.1 µF,50V,Electrolytic
C804	VCKYMN1HB102K	J	AA	0.001 µF,50V
C805,806	VCTYPA1CX333K	J	AA	0.033 µF,16V
C807	RC-GZA104AF1H	J	AB	0.1 µF,50V,Electrolytic
C808	VCTYPA1CX683K	J	AA	0.068 µF,16V
C809	VCTYPA1CX473K	J	AA	0.047 µF,16V
C810	VCKYMN1HB181K	J	AA	180 pF,50V
C811	VCTYPA1CX104K	J	AB	0.1 µF,16V
C812	VCKYMN1HB331K	J	AA	330 pF,50V
C813	VCTYPA1CX104K	J	AB	0.1 µF,16V
C814	VCTYMN1CY103K	J	AA	0.01 µF,16V
C815	VCTYMN1CX472K	J	AA	0.0047 µF,16V
C816	VCKYMN1HB102K	J	AA	0.001 µF,50V
C817	RC-GZA474AF1H	J	AA	0.47 µF,50V,Electrolytic
C818	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C819	RC-GZA476AF1A	J	AB	47 µF,10V,Electrolytic
C820	VCTYMN1CX332K	J	AA	0.0033 µF,16V
C821	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C822	VCKYMN1HB221K	J	AA	220 pF,50V
C830	VCCSMN1HL2R2C	J	AB	2.2 pF,50V
C831	VCTYMN1CX272K	J	AA	0.0027 µF,16V
C832	VCCSMN1HL270J	J	AA	27 pF,50V
C833	VCKYMN1HB102K	J	AA	0.001 µF,50V
C834	VCTYPA1CX333K	J	AA	0.033 µF,16V
C835	RC-GZA104AF1H	J	AB	0.1 µF,50V,Electrolytic
C837	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C838	VCTYMN1CY103K	J	AA	0.01 µF,16V
C839	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C840	RC-GZA334AF1H	J	AA	0.33 µF,50V,Electrolytic
C841	VCTYPA1CX473K	J	AA	0.047 µF,16V
C842	VCTYPA1CX473K	J	AA	0.047 µF,16V
C843	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic
C844	RC-GZA337AF1A	J	AB	330 µF,10V,Electrolytic
C845	RC-GZA475AF1H	J	AB	4.7 µF,50V,Electrolytic
C846	RC-GZA337AF1A	J	AB	330 µF,10V,Electrolytic
C847	VCTYMN1CY103K	J	AA	0.01 µF,16V
C848	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C849	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C850	VCTYPA1EF104Z	J	AA	0.1 µF,25V
C851	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C867,868	RC-GZA106AF1C	J	AB	10 µF,16V,Electrolytic
C869,870	VCTYMN1CY222K	J	AA	0.0022 µF,16V
C873	VCTYMN1CY103K	J	AA	0.01 µF,16V
C887	VCTYMN1EF223Z	J	AA	0.022 µF,25V
C889	RC-GZA106AF1H	J	AB	10 µF,50V,Electrolytic
C901,902	VCTYMN1CY103M	J	AA	0.01 µF,16V
C903,904	VCTYMN1CX562K	J	AA	0.0056 µF,16V
C905,906	VCTYMN1CX822K	J	AA	0.0082 µF,16V
C907,908	VCTYMN1CX682K	J	AA	0.0068 µF,16V
C909,910	VCTYPA1CX223K	J	AA	0.022 µF,16V

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
C911,912	VCTYMN1CX222K	J	AA	0.0022 µF,16V
C913,914	VCTYMN1CX272K	J	AA	0.0027 µF,16V
C915~918	VCKYMN1HB331K	J	AA	330 pF,50V
C919,920	RC-GZA105AF1H	J	AB	1 µF,50V,Electrolytic
C921	RC-GZA107AF1A	J	AB	100 µF,10V,Electrolytic

RESISTORS

	VRD-MN2BD000C	J	AA	0 ohm,Jumper,ø1.4x3.5mm,Ivory
R1	VRD-ST2EE100J	J	AA	10 ohm,1/4W
R2	VRD-MN2BD330J	J	AA	33 ohms,1/8W
R3	VRD-MN2BD470J	J	AA	47 ohms,1/8W
R5	VRD-ST2CD334J	J	AA	330 kohms,1/6W [X]
R5	VRD-ST2EE334J	J	AA	330 kohms,1/4W [Z]
R6	VRD-ST2CD824J	J	AA	820 kohms,1/6W [X]
R6	VRD-ST2EE824J	J	AA	820 kohms,1/4W [Z]
R7	VRD-ST2EE121J	J	AA	120 ohms,1/4W [Y]
R7	VRD-ST2EE391J	J	AA	390 ohms,1/4W [X]
R9	VRD-MN2BD223J	J	AA	22 kohms,1/8W
R11	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W [Z Only]
R25	VRD-ST2CD121J	J	AA	120 ohms,1/6W [X]
R25	VRD-ST2EE121J	J	AA	120 ohms,1/4W [Z]
R26	VRD-MN2BD392J	J	AA	3.9 kohms,1/8W
R27	VRD-MN2BD333J	J	AA	33 kohms,1/8W
R28	VRD-MN2BD104J	J	AA	100 kohm,1/8W [Z Only]
R29	VRD-MN2BD153J	J	AA	15 kohms,1/8W
R30	VRD-MN2BD122J	J	AA	1.2 kohms,1/8W
R35	VRD-ST2CD182J	J	AA	1.8 kohms,1/6W [X]
R35	VRD-ST2EE100J	J	AA	10 ohm,1/4W [Z]
R36	VRD-ST2EE681J	J	AA	680 ohms,1/4W [Z Only]
R40	VRD-MN2BD390J	J	AA	39 ohms,1/8W [Z Only]
R42	VRD-MN2BD390J	J	AA	39 ohms,1/8W [Z Only]
R43	VRD-ST2CD182J	J	AA	1.8 kohms,1/6W [Z Only]
R50	VRD-MN2BD101J	J	AA	100 ohm,1/8W [Z Only]
R201~204	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R205,206	VRD-MN2BD560J	J	AA	56 ohms,1/8W
R207,208	VRD-MN2BD682J	J	AA	6.8 kohms,1/8W
R209,210	VRD-MN2BD154J	J	AA	150 kohms,1/8W
R211,212	VRD-MN2BD682J	J	AA	6.8 kohms,1/8W
R213,214	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R215,216	VRD-MN2BD682J	J	AA	6.8 kohms,1/8W
R217,218	VRD-MN2BD272J	J	AA	2.7 kohms,1/8W
R219,220	VRD-MN2BD333J	J	AA	33 kohms,1/8W
R221~224	VRD-MN2BD682J	J	AA	6.8 kohms,1/8W
R225,226	VRD-MN2BD561J	J	AA	560 ohms,1/8W
R227,228	VRD-MN2BD470J	J	AA	47 ohms,1/8W
R229,230	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R231,232	VRD-ST2EE103J	J	AA	10 kohm,1/4W
R236,237	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R238	VRD-MN2BD684J	J	AA	680 kohms,1/8W
R239,240	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R241	VRD-MN2BD123J	J	AA	12 kohms,1/8W
R243	VRD-MN2BD563J	J	AA	56 kohms,1/8W
R250	VRD-ST2EE101J	J	AA	100 ohm,1/4W
R254	VRD-MN2BD223J	J	AA	22 kohms,1/8W
R255	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R259,260	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R261	VRD-MN2BD273J	J	AA	27 kohms,1/8W
R262	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R264	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R268	VRD-ST2CD153J	J	AA	15 kohms,1/6W
R351	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R352	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R353	VRD-MN2BD220J	J	AA	22 ohms,1/8W
R354~356	VRD-ST2EE470J	J	AA	47 ohms,1/4W
R357,358	VRD-MN2BD272J	J	AA	2.7 kohms,1/8W [Z Only]
R367,368	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W [Z Only]
R381	VRD-ST2EE333J	J	AA	33 kohms,1/4W
R382,383	VRD-MN2BD183J	J	AA	18 kohms,1/8W
R384	VRD-MN2BD272J	J	AA	2.7 kohms,1/8W
R385	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R386	VRD-MN2BD182J	J	AA	1.8 kohms,1/8W
R387	VRD-MN2BD563J	J	AA	56 kohms,1/8W
R391	VRD-ST2EE103J	J	AA	10 kohm,1/4W
R392	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R399	VRD-MN2BD182J	J	AA	1.8 kohms,1/8W
⚠R408	VRG-ST2EG2R7J	J	AB	2.7 ohms,1/4W,Fusible
R451,452	VRD-MN2BD224J	J	AA	220 kohms,1/8W
R454,455	VRD-MN2BD822J	J	AA	8.2 kohms,1/8W
R456	VRD-ST2EE101J	J	AA	100 ohm,1/4W
R500	VRD-ST2EE680J	J	AA	68 ohms,1/4W
R501,502	VRD-ST2EE103J	J	AA	10 kohm,1/4W

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
R503,504	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R505,506	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R507,508	VRD-ST2EE122J	J	AA	1.2 kohms,1/4W
R601,602	VRD-ST2EE102J	J	AA	1 kohm,1/4W
R603,604	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R605	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R606	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R607	VRD-ST2EE103J	J	AA	10 kohm,1/4W
⚠R609,610	VRG-ST2EG3R3J	J	AB	3.3 ohms,1/4W,Fusible
R611,612	VRD-MN2BD121J	J	AA	120 ohms,1/8W
R614	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R615,616	VRD-ST2EE223J	J	AA	22 kohms,1/4W
R621	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R623	VRD-MN2BD103J	J	AA	10 kohm,1/8W
⚠R651	VRG-ST2EG5R6J	J	AB	5.6 ohms,1/4W,Fusible
R652	VRD-ST2EE561J	J	AA	560 ohms,1/4W
R653	VRD-ST2EE271J	J	AA	270 ohms,1/4W
R654	VRD-MN2BD563J	J	AA	56 kohms,1/8W
R655	VRD-ST2EE102J	J	AA	1 kohm,1/4W
R656	VRD-ST2EE222J	J	AA	2.2 kohms,1/4W
R657	VRD-ST2EE181J	J	AA	180 ohms,1/4W
R658	VRD-MN2BD223J	J	AA	22 kohms,1/8W
R659	VRD-ST2EE103J	J	AA	10 kohm,1/4W
R660	VRD-ST2EE561J	J	AA	560 ohms,1/4W
R662	VRD-ST2EE561J	J	AA	560 ohms,1/4W
R663	VRD-ST2EE223J	J	AA	22 kohms,1/4W
R664	VRD-MN2BD391J	J	AA	390 ohms,1/8W
R665	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R667	VRD-ST2EE103J	J	AA	10 kohm,1/4W
R668	VRD-ST2CD104J	J	AA	100 kohm,1/6W
R669	VRD-ST2EE821J	J	AA	820 ohms,1/4W
R670	VRD-ST2EE102J	J	AA	1 kohm,1/4W [Z Only]
R671	VRD-MN2BD563J	J	AA	56 kohms,1/8W
R672	VRD-ST2EE102J	J	AA	1 kohm,1/4W
R673	VRD-ST2EE1R0J	J	AA	1 ohm,1/4W
R674	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R675	VRD-ST2EE104J	J	AA	100 kohm,1/4W
⚠R676	VRG-ST2EG3R3J	J	AB	3.3 ohms,1/4W,Fusible
R701,702	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R703	VRD-MN2BD221J	J	AA	220 ohms,1/8W
R704~714	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R716~720	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R721	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R722	VRD-ST2CD272J	J	AA	2.7 kohms,1/6W
R724	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R726,727	VRD-ST2CD473J	J	AA	47 kohms,1/6W
R728	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R730,731	VRD-MN2BD153J	J	AA	15 kohms,1/8W
R732~734	VRD-MN2BD223J	J	AA	22 kohms,1/8W
R735	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R736	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R737	VRD-MN2BD223J	J	AA	22 kohms,1/8W
R738~743	VRD-MN2BD153J	J	AA	15 kohms,1/8W
R744	VRD-MN2BD332J	J	AA	3.3 kohms,1/8W
R745	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R746	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R747	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R748	VRD-ST2CD222J	J	AA	2.2 kohms,1/6W
R749	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R750	VRD-MN2BD332J	J	AA	3.3 kohms,1/8W
R751	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R752~754	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R755	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R756	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R757	VRD-MN2BD392J	J	AA	3.9 kohms,1/8W
R758	VRD-MN2BD682J	J	AA	6.8 kohms,1/8W
R759	VRD-MN2BD153J	J	AA	15 kohms,1/8W
R760	VRD-ST2CD223J	J	AA	22 kohms,1/6W
R761	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R762	VRD-MN2BD223J	J	AA	22 kohms,1/8W
R765,766	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R767	VRD-ST2CD153J	J	AA	15 kohms,1/6W
R768	VRD-ST2EE103J	J	AA	10 kohm,1/4W
R770	VRD-MN2BD101J	J	AA	100 ohm,1/8W
R771	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R772	VRD-ST2CD103J	J	AA	10 kohm,1/6W
R773	VRD-MN2BD152J	J	AA	1.5 kohms,1/8W
R774	VRD-MN2BD182J	J	AA	1.8 kohms,1/8W
R775	VRD-MN2BD272J	J	AA	2.7 kohms,1/8W
R776	VRD-MN2BD392J	J	AA	3.9 kohms,1/8W
R777	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R778	VRD-MN2BD152J	J	AA	1.5 kohms,1/8W

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
R779	VRD-MN2BD182J	J	AA	1.8 kohms,1/8W
R780	VRD-MN2BD272J	J	AA	2.7 kohms,1/8W
R781	VRD-MN2BD392J	J	AA	3.9 kohms,1/8W
R782	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R783	VRD-MN2BD331J	J	AA	330 ohms,1/8W
R784	VRD-ST2CD331J	J	AA	330 ohms,1/6W [Z Only]
R785,786	VRD-MN2BD331J	J	AA	330 ohms,1/8W
R787	VRD-MN2BD123J	J	AA	12 kohms,1/8W
R788	VRD-ST2CD472J	J	AA	4.7 kohms,1/6W
R789	VRD-ST2CD473J	J	AA	47 kohms,1/6W
R801	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R802	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R803	VRD-MN2BD153J	J	AA	15 kohms,1/8W
R804	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
R805	VRD-MN2BD682J	J	AA	6.8 kohms,1/8W
R806	VRD-MN2BD101J	J	AA	100 ohm,1/8W
R807	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R808	VRD-MN2BD123J	J	AA	12 kohms,1/8W
R809	VRD-MN2BD273J	J	AA	27 kohms,1/8W
R810	VRD-MN2BD823J	J	AA	82 kohms,1/8W
R811	VRD-MN2BD332J	J	AA	3.3 kohms,1/8W
R812	VRD-MN2BD153J	J	AA	15 kohms,1/8W
R813	VRD-MN2BD333J	J	AA	33 kohms,1/8W
R814	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R815	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R816	VRD-MN2BD152J	J	AA	1.5 kohms,1/8W
R817	VRD-MN2BD823J	J	AA	82 kohms,1/8W
R819	VRD-MN2BD393J	J	AA	39 kohms,1/8W
R820	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R821	VRD-MN2BD563J	J	AA	56 kohms,1/8W
R822	VRD-MN2BD682J	J	AA	6.8 kohms,1/8W
R823	VRD-MN2BD122J	J	AA	1.2 kohms,1/8W
R824	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R825	VRD-MN2BD122J	J	AA	1.2 kohms,1/8W
R826,827	VRD-MN2BD224J	J	AA	220 kohms,1/8W
R828	VRD-ST2EE102J	J	AA	1 kohms,1/4W
R829	VRD-ST2EE102J	J	AA	1 kohm,1/4W
R830	VRD-ST2CD102J	J	AA	1 kohm,1/6W
R831	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R832	VRD-MN2BD563J	J	AA	56 kohms,1/8W
R833	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R834	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R835	VRD-MN2BD471J	J	AA	470 ohms,1/8W
R836,837	VRD-MN2BD473J	J	AA	47 kohms,1/8W
R838	VRD-MN2BD333J	J	AA	33 kohms,1/8W
R839,840	VRD-MN2BD223J	J	AA	22 kohms,1/8W
R842	VRD-ST2EE220J	J	AA	22 ohms,1/4W
R849	VRD-MN2BD104J	J	AA	100 kohm,1/8W
R856	VRD-MN2BD122J	J	AA	1.2 kohms,1/8W
R857	VRD-MN2BD273J	J	AA	27 kohms,1/8W
R858	VRD-MN2BD681J	J	AA	680 ohms,1/8W
R860	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R871	VRD-MN2BD472J	J	AA	4.7 kohms,1/8W
R873,874	VRD-ST2CD101J	J	AA	100 ohm,1/6W
R875,876	VRD-MN2BD103J	J	AA	10 kohm,1/8W
R877	VRD-ST2EE221J	J	AA	220 ohms,1/4W
R878	VRD-MN2BD101J	J	AA	100 ohm,1/8W
R880	VRD-MN2BD101J	J	AA	100 ohm,1/8W
R903,904	VRD-MN2BD333J	J	AA	33 kohms,1/8W
R905,906	VRD-MN2BD683J	J	AA	68 kohms,1/8W
R907,908	VRD-MN2BD393J	J	AA	39 kohms,1/8W
R909,910	VRD-MN2BD153J	J	AA	15 kohms,1/8W
R911,912	VRD-MN2BD183J	J	AA	18 kohms,1/8W
R913,914	VRD-MN2BD682J	J	AA	6.8 kohms,1/8W
R915,916	VRD-MN2BD183J	J	AA	18 kohms,1/8W
R917~920	VRD-MN2BD682J	J	AA	6.8 kohms,1/8W
R921,922	VRD-MN2BD562J	J	AA	5.6 kohms,1/8W
R923,924	VRD-MN2BD122J	J	AA	1.2 kohms,1/8W
R925~928	VRD-MN2BD822J	J	AA	8.2 kohms,1/8W
R929,930	VRD-MN2BD222J	J	AA	2.2 kohms,1/8W
R931,932	VRD-MN2BD684J	J	AA	680 kohms,1/8W
R933,934	VRD-MN2BD102J	J	AA	1 kohm,1/8W
R935,936	VRD-MN2BD392J	J	AA	3.9 kohms,1/8W
R937	VRD-ST2EE221J	J	AA	220 ohms,1/4W

OTHER CIRCUITRY PARTS

BI500/CNS3/CNS2	QCNWN0756AWZZ	J		Connector Ass'y,4-2-2Pin
BI501/CNS501	QCNWN0674AWZZ	J	AP	Connector Ass'y,7-6Pin
BI651/CNS651	QCNWN0667AWZZ	J	AG	Connector Ass'y,3-3Pin
BI801/CNS801	QCNWN0744AWZZ	J	AL	Connector Ass'y,8-8Pin
BI802/CNS802	QCNWN0606AWZZ	J	AH	Connector Ass'y,5-5Pin

NO.	PARTS CODE	★	PRICE RANK	DESCRIPTION
BI803/CNS803	QCNWN0747AWZZ	J	AK	Connector Ass'y,6-6Pin
BI851/CNS851	QCNWN0673AWZZ	J	AN	Connector Ass'y,6-6Pin
BI852/CNS852	QCNWN0678AWZZ	J	AT	Connector Ass'y,12-12Pin
CNP1	QCNCW012EAWZZ	J		Plug,5Pin [Z]
CNP1	92LCONE6P52287	J	AC	Plug,6Pin [X]
CNP2	92LCONE2P53253	J	AB	Plug,2Pin [Z Only]
CNP3	92LCONE2P53014	J		Plug,2Pin [Z Only]
CNP201	92LCONE3P53253	J	AB	Plug,3Pin
CNP202	92LCONE5P53253	J	AB	Plug,5Pin
CNP204	QCNCW027KAWZZ	J	AE	Plug,10Pin
CNP501	92LCONE6P53014	J	AC	Plug,6Pin
CNP504	92LCONE5P52287	J	AC	Plug,5Pin
CNP601	QTANA0404AWZZ	J	AF	Terminal,Ext.Speaker
CNP602	QCNCW012MAWZZ	J	AG	Plug,12Pin
CNP603	92LCONE5P52287	J	AC	Plug,5Pin [X]
CNP603	92LCONE6P52287	J	AC	Plug,6Pin [Z]
CNP651	92LCONE3P5267X	J	AB	Plug,3Pin
CNP751	QCNCW012NAWZZ	J	AE	Plug,13Pin
CNP753	92LCONEAP53254	J	AD	Plug,10Pin
CNP803	QCNCM932FAFZZ	J	AC	Plug,6Pin
CNP851	92LCONE6P53253	J	AC	Plug,6Pin
CNP852	92LCONECP53253	J	AD	Plug,12Pin
CNS201	QCNWN0595AWZZ	J	AH	Connector Ass'y,3Pin
CNS202	QCNWN0596AWZZ	J	AL	Connector Ass'y,5Pin
CNS204	QCNWN0734AWZZ	J	AK	Connector Ass'y,10Pin
CNS753	QCNWN0677AWZZ	J	AL	Connector Ass'y,10Pin
CNW2	QCNWN0750AWZZ	J	AD	Tip with Lead
CNW3	QCNWN0766AWZZ	J		Wire Lead,100mm [Z Only]
CNW502	VWAAC-BK130XX	J		Wire Lead,130mm
⚠F651	92LFUSE-T252E	J	AD	Fuse,T2.5A L 250V
⚠F661,662	92LFUSE-T501E	J	AD	Fuse,T500mA L 250V
⚠F663	92LFUSE-T122E	J		Fuse,T1.25A L 250V
FW1	QCNWN0679AWZZ	J	AE	Flat Cable,6Pin [X]
FW1	QCNWN0680AWZZ	J	AC	Flat Cable,5Pin [Z]
FW504	QCNWN0749AWZZ	J	AD	Flat Cable,5Pin
FW505	QCNWN0672AWZZ	J	AE	Flat Cable,2Pin
FW602	QCNWN0668AWZZ	J	AG	Flat Cable,12Pin
FW603	QCNWN0699AWZZ	J	AC	Flat Cable,5Pin [X]
FW603	QCNWN0776AWZZ	J	AD	Flat Cable,6Pin [Z]
FW652,653	QCNWN0666AWZZ	J	AD	Flat Cable,2Pin
FW701	QCNWN0676AWZZ	J	AF	Flat Cable,13Pin
FW702	QCNWN0755AWZZ	J	AD	Flat Cable,11Pin
FW751	QCNWN0675AWZZ	J	AH	Flat Cable,13Pin
J601	QJAKM0004AWZZ	J	AK	Jack,Headphones
LCD801	RV-LX0020AWZZ	J	AT	LCD
M601	92LMTR1746AASY	J	AP	Motor with Pulley [Tape]
M701	92LMTR1858CASY	J	AS	Motor with Chassis [Spin]
M702	92LMTR1854BASY	J	AP	Motor with Gear [Slide]
M981	92LMTR2282DASY	J	AP	Motor Ass'y [Loading]
RX701	VHLSPS4201C-1	J	AN	Remote Sensor
⚠SO651	QSOCA0202AWZZ	J	AL	Socket,AC Input [X]
⚠SO651	92LSOK-720A	J	AK	Socket,AC Input [Z]
SP601,602	VSP0010PBS3SA	J	AT	Woofer
SP603,604	RALMB0101AFZZ	J	AB	Tweeter
SW1	QSW-S0020AWZZ	J	AG	Switch,Slide Type [Band] [Z Only]
SW4	QSW-F9001AWZZ	J	AE	Switch,Push Type [Pickup In]
SW201	QSW-S0018AWZZ	J	AG	Switch,Slide Type [Record/Playback]
SW251	QSW-S0025AWZZ	J	AF	Switch,Slide Type [Beat Cancel]
SW253	QSW-S0026AWZZ	J	AF	Switch,Slide Type [Band] [X]
SW253	QSW-S0026AWZZ	J	AF	Switch,Slide Type [Tape Selector/FM Mode] [Z]
SW601	QSW-F0340AFZZ	J	AE	Switch,Leaf Type [Tape 1 Main]
SW602	QSW-F0340AFZZ	J	AE	Switch,Leaf Type [Tape 2 Main]
SW603	92LM-SW1658A	J	AB	Switch,Leaf Type [Tape 1/2 Selector]
SW651	QSW-S0021AWZZ	J	AH	Switch,Slide Type [Function]
SW701	QSW-K0003AWZZ	J	AD	Switch,Key Type [Power]
SW702	QSW-K0003AWZZ	J	AD	Switch,Key Type [CD-Stop]
SW703	QSW-K0003AWZZ	J	AD	Switch,Key Type [CD-Play]
SW704	QSW-K0003AWZZ	J	AD	Switch,Key Type [CD-Pause]
SW705	QSW-K0003AWZZ	J	AD	Switch,Key Type [CD-Cue]
SW706	QSW-K0003AWZZ	J	AD	Switch,Key Type [CD-Review]
SW707	QSW-K0003AWZZ	J	AD	Switch,Key Type [CD-Disc 1-2]
SW708	QSW-K0003AWZZ	J	AD	Switch,Key Type [CD-Random]
SW709	QSW-K0003AWZZ	J	AD	Switch,Key Type [Volume Up]
SW710	QSW-K0003AWZZ	J	AD	Switch,Key Type [Volume Down]
SW711	QSW-K0003AWZZ	J	AD	Switch,Key Type [CD-Program]
SW712	QSW-K0003AWZZ	J	AD	Switch,Key Type [CD-Clear]
SW713	QSW-K0003AWZZ	J	AD	Switch,Key Type [CD-Tray 1 Open/Close]

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
SW714	QSW-K0003AWZZ	J	AD	Switch,Key Type [CD-Tray 2 Open/Close]
SW981	QSW-F0001AWZZ	J	AD	Switch,Leaf/Skeleton Type [Tray/Mechanism Up]
SW982	92LSWICHL1749A	J	AD	Switch,Leaf Type [Tray 1]
SW983	92LSWICHL1749A	J	AD	Switch,Leaf Type [Tray 2]

DECK MECHANISM PARTS

1	92LM-ANG1658A	J	AC	Joint Bracket,Mechanism
3	92LM-BELT1651B	J	AB	FR Belt
4	92LMBELT1658A1	J	AC	Drive Belt [Tape 1]
5	92LMBELT1658B1	J	AC	Drive Belt [Tape 2]
10	92LM-CSPR667J	J	AA	Spring,Latch Plate
12	92LM-CSPR1651F	J	AA	Spring,Back Tention
13	92LM-EH1658A	J	AG	Head,Erase
14	92LM-ESPR1651A	J	AA	Spring,Lock Plate
15	92LM-ESPR1651B	J	AA	Spring,Holder Lock Lever
17	92LM-FRRA1651A	J	AF	FR Roller Ass'y
18	92LM-FWA1651A	J	AG	Flywheel Ass'y [Tape 2]
19	92LM-FWA1658A	J	AG	Flywheel Ass'y [Tape 1]
20	92LM-GEAR1651C	J	AA	Gear,FF
21	92LM-HPLT1746A	J	AC	Plate,Head
22	92LM-ICAM1651A	J	AB	Cam,Idler
23	92LM-ILA1651A	J	AB	Idler Lever Ass'y
24	92LM-LEV1651G1	J	AC	Lever,Main Lock
25	92LM-LEV1651I	J	AA	Lever,AS Killer
27	92LM-LEV1651K	J	AA	Lever,Eject Joint
28	92LM-LEV1651L	J	AB	Lever,Erase Prevention
29	92LM-LEV1658A1	J	AB	Lever,Record
30	92LM-LEV1658B	J	AA	Lever,Play
31	92LM-LEV1658C	J	AA	Lever,Rewind
32	92LM-LEV1658D	J	AB	Lever,FF
33	92LM-LEV1658E	J	AB	Lever,Stop
35	92LM-LEV1658H	J	AB	Lever,Holder Lock
37	92LM-LEV1658J	J	AB	Guide,Tape 1
38	92LM-LGA1746A	J	AF	Lever Guide Ass'y
40	92LM-MCA1654A	J	AK	Main Chassis Ass'y [Tape 2]
42	92LMCPFSPR719A	J	AB	Spring,Cassette
45	92LM-PRA1651A	J	AE	Pinch Roller Ass'y
46	92LM-REL1651B	J	AB	Supply Reel
47	92LM-RPH1746A	J	AM	Head,Record/Playback
50	92LM-TSPR1746A	J	AA	Spring,Pinch Roller
51	92LM-TSPR1651B	J	AA	Spring,Operate Lever
52	92LM-TSPR1651C	J	AA	Spring,Record Lever
53	92LM-TSPR1651D	J	AA	Spring,Idler Lever
55	92LM-TSPR1651F	J	AA	Spring,AS Killer Lever
56	92LMTURA1651A1	J	AF	Take-up Reel Ass'y
58	92LM-TSPR1651G	J	AA	Spring,Pause Stop Lever
64	92L1R5WC3R8R5P	J	AA	Washer,ø1.5×ø3.8×0.5mm
66	92L1R8WC3R4R5P	J	AA	Washer,ø1.8×ø3.4×0.5mm
67	92L2R3W6R5P	J	AA	Washer,ø2.3×ø6×0.5mm
69	92L1R2WC4-R5P	J	AA	Washer,ø1.2×ø4×0.5mm
70	92L3R6W6-R5P	J	AA	Washer,ø3.6×ø6×0.5mm
71	92LS2R7W6R4R5L	J	AA	Washer,ø2.7×ø6.4×0.5mm
72	92LM-MCA1858A	J	AH	Main Chassis Ass'y [Tape 1]
501	92LS2R6S1746A	J	AA	Motor Screw,ø2.6mm
504	92L2BTS+5BZ	J	AA	Screw,ø2×5mm
505	92L2BTS+7BZ	J	AA	Screw,ø2×7mm
506	92L2TTS+3BZ	J	AA	Screw,ø2×3mm
508	92L2TTS+4BZ	J	AA	Screw,ø2×4mm
509	92L2TTS+4PZ	J	AA	Screw,ø2×4mm
510	92LS2S1658C	J	AA	Screw,ø2×9mm
511	92L2BTS+5PZ	J	AA	Screw,ø2×5mm
M601	92LMTR1746AASY	J	AP	Motor with Pulley [Tape]
SW601	QSW-F0340AFZZ	J	AE	Switch,Leaf Type [Tape 1 Main]
SW602	QSW-F0340AFZZ	J	AE	Switch,Leaf Type [Tape 2 Main]
SW603	92LM-SW1658A	J	AB	Switch,Leaf Type [Tape 2 Selector]

CD MECHANISM PARTS

301	NGERH0011AWZZ	J	AC	Gear,Middle
302	NGERH0012AWZZ	J	AC	Gear,Drive
303	MLEVP0010AWZZ	J	AC	Rail,Guide
304	NSFTM0002AWFW	J	AE	Shaft,Guide
305	PCUSG0427AFSC	J	AC	Cushion
⚠306	92LHPC1MASY	J	BG	Pickup Unit Ass'y
306-1	———		—	Pickup Unit (Not Replacement Item)
306-2	NGERR0043AFZZ	J	AC	Gear,Rack
306-3	MSPRC0961AFZZ	J	AA	Spring,Rack
701	92L2R6S+6CZ	J	AB	Screw,ø2.6×6mm
702	92L2TTS+5BB	J	AB	Screw,ø2×5mm
703	92L2S+3PZ	J	AA	Screw,ø2×3mm
704	92L1R5WC3R8R25	J	AA	Washer,ø1.5×ø3.8×0.25mm
M701	92LMTR1858CASY	J	AS	Motor with Chassis [Spin]
M702	92LMTR1854BASY	J	AP	Motor with Gear [Slide]
SW4	QSW-F9001AWZZ	J	AE	Switch,Push Type [Pickup In]

CHANGER MECHANISM

101	LCHSM0026AWZZ	J	AW	Main Base
102	PGIDM0013AWZZ	J	AQ	Stabilizer Guide
103	NPLYR0003AWZZ	J	AC	Pulley,Transmisson
104	NGERH0045AWZZ	J	AD	Gear,Idler
105	NGERH0046AWZZ	J	AE	Gear,Tray Drive
106	NGERH0047AWZZ	J	AC	Gear,Drive
107	MLEVP0044AWZZ	J	AG	Lever,Mecha Move
108	GCOVA1067AWZZ	J	AM	Disc Tray 1
109	GCOVA1068AWZZ	J	AM	Disc Tray 2
110	PGIDM0014AWZZ	J	AL	Holder,CD Mechanism
111	MLEVP0045AWZZ	J	AC	Lever,Switch [Disc 1]
112	MLEVP0046AWZZ	J	AC	Lever,Switch [Disc 2]
113	MLEVP0047AWZZ	J	AC	Lever,Detection Switch
114	MSPRD0064AWFJ	J	AB	Spring,Switch Lever
115	NBLTK0016AWZZ	J	AD	Belt
116	LHLDZ1096AWZZ	J	AG	Holder,CD Servo PWB
117	LHLDM1004AWZZ	J	AG	Stabilizer
118	PMAGF0001AWZZ	J	AF	Magnet
121	PCOVZ1005AWZZ	J	AE	Cover
122	LHLDZ1107AWZZ	J	AF	Holder,Disc 2
123	LHLDZ1106AWZZ	J	AF	Holder,Disc 1
124	92LN-BAND1318A	J	AA	Nylon Band,80mm
401	XEBSD26P20000	J	AA	Screw,ø2.6×20mm
402	LX-EZ0005AWFD	J	AA	Screw,ø2.6×10mm
403	XBPSD26P05000	J	AA	Screw,ø2.6×5mm
404	XEBSD26P10000	J	AA	Screw,ø2.6×10mm
405	XEBSD30P10000	J	AA	Screw,ø3×10mm
406	XEBSD26P08000	J	AA	Screw,ø2.6×8mm
M981	92LMTR2282DASY	J	AP	Motor Ass'y [Loading]
SW981	QSW-F0001AWZZ	J	AD	Switch,Leaf/Skeleton Type [Tray/Mechanism Up]
SW982	92LSWICHL1749A	J	AD	Switch,Leaf Type [Tray 1]
SW983	92LSWICHL1749A	J	AD	Switch,Leaf Type [Tray 2]

CABINET PARTS

201	92LCAB2331AS1	J	AZ	Front Cabinet Ass'y [X]
201	92LCAB2332AS1	J		Front Cabinet Ass'y [Z]
201-1	———		—	Front Cabinet (Not Replacement Item)
201-2	HPNLH1068AWSA	J	AG	Panel,LCD
203	GCABB1148AWSA	J	AX	Rear Cabinet [X]
203	GCABB1149AWSA	J		Rear Cabinet [Z]
204	92LBSPR1401A	J	AC	Spring,Battery,+/-
205	GFTAB1001AWSA	J	AE	Battery,Lid
206	JHNDP1012AWSA	J	AN	Handle
207	LANGF0018AWFW	J	AH	Bracket,Handle,Right
208	LANGF0019AWFW	J	AH	Bracket,Handle,Left
209	LHLDL1002AWZZ	J	AB	Stoper,Handle
210	QANTR0006AWZZ	J	AQ	Rod Antenna
211	QTANZ9001AWFW	J	AE	Terminal,Rod Antenna
213	92LMEC2331CTS1	J	AK	Cassette Holder Ass'y,Tape 1
213-1	———		—	Cassette Holder,Tape 1 (Not Replacement Item)
213-2	HPNLH1063AWSA	J	AE	Panel,Cassette,Tape 1
214	92LMEC2331CTS2	J	AK	Cassette Holder Ass'y,Tape 2
214-1	———		—	Cassette Holder,Tape 2 (Not Replacement Item)
214-2	HPNLH1064AWSA	J	AE	Panel,Cassette,Tape 2
215	92LCSPR1596A	J	AA	Spring,Cassette Up
216	92LCUSN1585A	J	AA	Cushion,Leg
217	92LPNL2331AS1	J	AK	Decoration Panel Ass'y [X]
217	92LPNL2332AS1	J		Decoration Panel Ass'y [Z]
217-1	———		—	Decoration Panel (Not Replacement Item)
217-2	HPNLD1004AWSA	J	AD	Panel,Dial
219	JKNBZ0190AWSA1	J	AD	Button,Record [Tape 1]
220	JKNBZ0191AWSA1	J	AD	Button,Play [Tape 1]
221	JKNBZ0192AWSA1	J	AD	Button,Rewind [Tape 1]
222	JKNBZ0193AWSA1	J	AD	Button,FF [Tape 1]
223	JKNBZ0194AWSA1	J	AD	Button,Stop [Tape 1]
224	JKNBZ0195AWSA1	J	AE	Button,Play [Tape 2]

NO.	PART CODE	★	PRICE RANK	DESCRIPTION
225	JKNBZ0196AWSA1	J	AE	Button,Stop [Tape 2]
226	JKNBZ0206AWSA	J	AG	Knob,Volume
227	JKNBZ0207AWSA	J	AF	Knob,CD Control
228	LANGK0041AWZZ1	J	AF	Bracket,Cassette Button
229	92LDAMPER1651A	J	AD	Damper
230	92LFELT666B	J	AA	Felt
231	JKNBP0006AWSA	J	AC	Knob,Function
232	JKNBZ0208AWSB	J	AE	Knob,CD Eject,Tray 1
233	JKNBZ0209AWSB	J	AE	Knob,CD Eject,Tray 2
234	LHLDF1009AWZZ	J	AB	Holder,PWB
235	HSSND0009AWSA	J	AE	Dial Pointer
236	JKNBZ0210AWSA	J	AE	Knob,Tuning
237	LHLDZ1092AWZZ	J	AH	Holder,Gear
238	LHLDZ1095AWZZ	J	AL	Tuner Frame [X]
238	LHLDZ1122AWZZ	J	AF	Tuner Frame [Z]
240	92LWHEL1569A	J	AE	Dial Wheel
241	GCOVA1076AWSA	J	AH	Cover,Tray 1
242	GCOVA1077AWSA	J	AH	Cover,Tray 2
247	PRDAR0055AWZZ	J		Heat Sink
248	TSPC-0380AWZZ	J		Label,Specifications [X]
248	TSPC-0381AWZZ	J		Label,Specifications [Z]
250	92LM-LEV1746A	J	AB	Lever,Record Spring
251	LHLDZ1097AWZZ	J	AC	Holder,LCD
252	LHLDZ1098AWZZ	J	AC	Holder,LED [Power]
253	LHLDZ1099AWZZ	J	AC	Holder,LED [CD]
⚠254	92LFSHOLD1652T	J	AB	Holder,Fuse
255	92LBSPR1595C	J	AB	Spring,Battery,-
256	NGERH0050AWZZ	J	AE	Gear,Dial
259	TLABH0041AWSB	J	AE	Label,Cassette,Tape 1
260	TLABH0042AWSB	J	AE	Label,Cassette,Tape 2
262	PCOVS3017AWZZ	J	AE	Shield,G.EQ.PWB
263	92LCOV1346A-BK	J	AB	Cover,Voltage Selector [Z Only]
264	JKNBZ0233AWSA	J		Knob,Fine Tuning [Z Only]
265	92LN-BAND1318A	J	AA	Nylon Band,80mm
267	JKNBZ0267AWSA	J	AC	Knob,Band [Z Only]
268	MLEVP0051AWZZ	J	AC	Lever,Band [Z Only]
269	92LPANEL713A	J	AB	Label,Made in Malaysia [Z Only]
270	92LLABL1420A1	J	AC	Label,Class 1 [Z Only]
271	LHLDZ1120AWZZ	J		Holder,LED [FM ST] [Z Only]
601	LX-CZ0011AFFD	J	AA	Screw,ø3×65mm
602	XEBSD30P10000	J	AA	Screw,ø3×10mm
603	XEBSD30P20000	J	AA	Screw,ø3×20mm
604	XHSSF30P06000	J	AA	Screw,ø3×6mm
605	XJSSF30P10000	9	AA	Screw,ø3×10mm
606	XJSSD30P10000	J	AA	Screw,ø3×10mm
607	XWSSJ30-07000	J	AA	Washer,ø3×ø10×0.7mm
608	XEBSD30P08000	J	AA	Screw,ø3×8mm
609	XBPSD26P06J00	J	AA	Screw,ø2.6×6mm
611	XCBSD30P08000	J	AA	Screw,ø3×8mm
612	XHBSD20P04000	J	AA	Screw,ø2×4mm
614	LX-WZ9028AWZZ	J	AA	Washer,Fiber Type
618	XWHSD32-08150	J	AB	Washer,ø3.2×ø13×0.8mm
620	LX-BZ0286AFFF	J	AA	Special Screw [Z Only]
621	XNESN20-16000	J	AA	Nut,ø2×1.6mm [Z Only]
622	XJSSD30P08000	J	AA	Screw,ø3×8mm [Z Only]

SPEAKER BOX PARTS

701	92LSCAB2331AS1	J	AX	Front Panel Ass'y,Left
↓ 701-1	HBDGB1004AWSA	J	AE	Label,SHARP
702	92LSCAB2331AS2	J	AX	Front Panel Ass'y,Right
↓ 702-1	HBDGB1004AWSA	J	AE	Label,SHARP
703	QCNWN0597AWZZ	J	AE	Speaker Cord
704	GCABB1138AWSA	J	AV	Rear Cabinet,Left
705	GCABB1139AWSA	J	AV	Rear Cabinet,Right
706	XEBSD30P10000	J	AA	Screw,ø3×10mm
707	XEBSD30P20000	J	AA	Screw,ø3×20mm
708	PSPAS0006AWZZ	J	AB	Spacer,Boss
SP601,602	VSP0010PBS3SA	J	AT	Woofer
SP603,604	RALMB0101AFZZ	J	AB	Tweeter

ACCESSORIES/PACKING PARTS

⚠	QACCB0004AW00	J	BB	AC Power Supply Cord [Z for Hong Kong]
⚠	QACCE0007AW00	J	AR	AC Power Supply Cord [Z Except for Hong Kong and Saudi Arabia]
⚠	QACCL0002AW00	J		AC Power Supply Cord [X for Australia]
	SPAKA0102AWZZ	J	AN	Packing Add.,Unit (Left/Right)
	SPAKA0106AWZZ	J	AU	Packing Add.,Speaker,Top/Bottom
	SPAKC0399AWZZ	J	AT	Packing Case [X]
	SPAKC0400AWZZ	J		Packing Case [Z]
	SPAKP0001AWZZ1	J	AC	Polyethylene Bag,Unit
	TINSK0048AWZZ	J	AD	Operation Manual [X]
	TINSZ0159AWZZ	J		Operation Manual [Z]
	TLABZ0301AWZZ	J		Feature Label,Speaker
	92LBAG002B	J	AA	Polyethylene Bag,Accessories [Z Only]
	92LBAG1607A1	J	AB	Polyethylene Bag,Speaker
	92LBAG1770A	J	AB	Polyethylene Bag,AC Power Supply Cord [X for Australia]
	92LBAG760C	J	AA	Polyethylene Bag,AC Plug Adaptor [Z Only]
⚠	92LCORD577B	J	AM	AC Power Supply Cord [Z for Saudi Arabia]
	92LGCARD1226E1	J		Warranty Card [X for Australia Only]
	92LPLUG027	J	AD	AC Plug Adaptor [Z for Saudi Arabia]
	92LPLUG155A	J	AG	AC Plug Adaptor [Z Except for Saudi Arabia]
	RRMCG0063AWSA	J	BB	Remote Control
↓	GFTAB1016AWSA	J		Battery Lid,Remote Control

P.W.B. ASSEMBLY (Not Replacement Item)

PWB-A1~9	92LPWB2331MANS	J	—	Main/Power/Microcomputer/Diplay/Terminal/Graphic Equalizer/Switch/Switch/Fine Tuning (Combined Ass'y) [X Only]
PWB-B	92LPWB2325TUNS	J	—	Tuner [X Only]
PWB-C	92LPWB2331DEKS	J	—	Deck [X Only]
PWB-D	92LPWB2325CDUS	J	—	CD Servo [X Only]
PWB-E	QPWBF0027AWZZ	J	AD	CD Motor (PWB Only) [X Only]

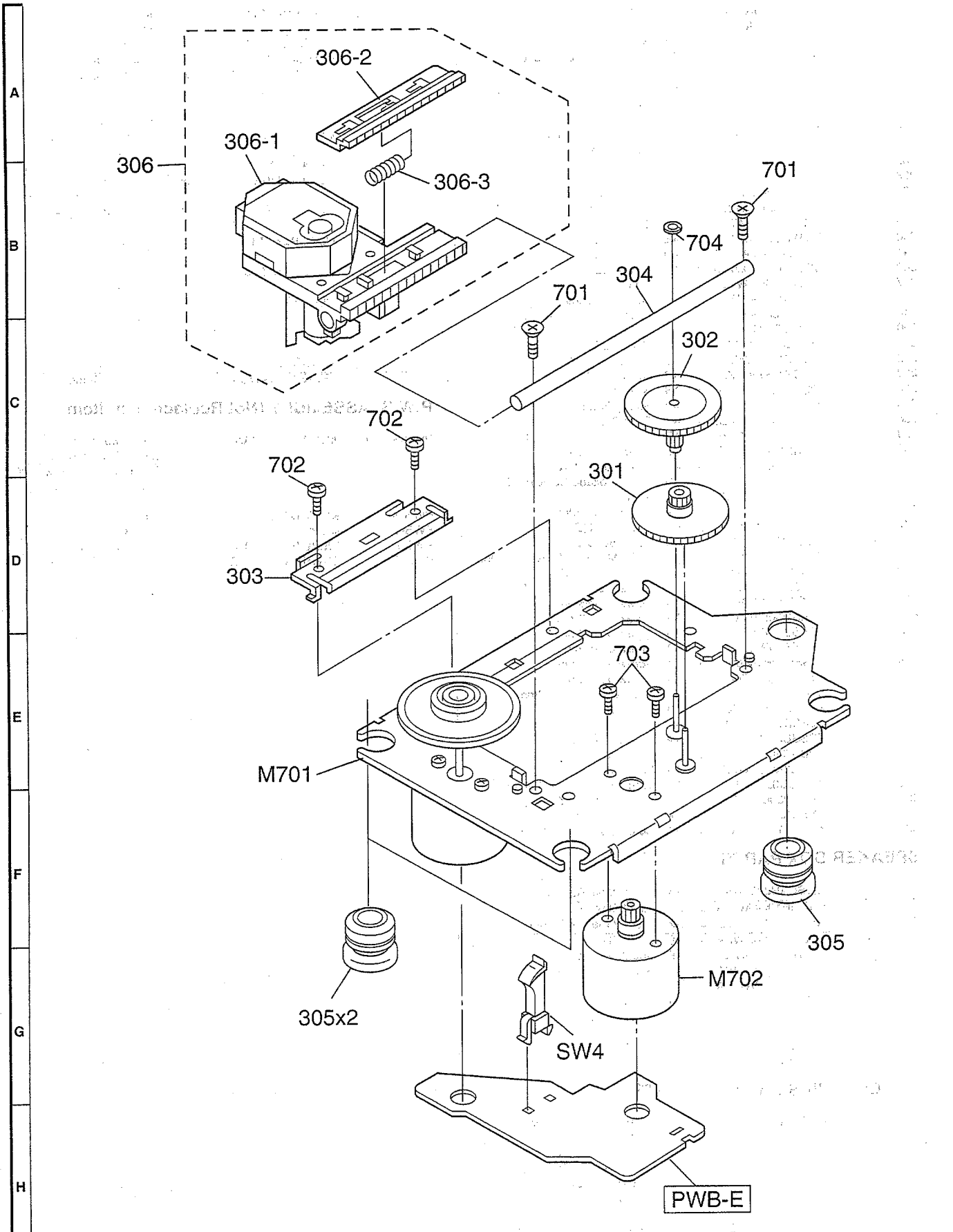


Figure 7 CD MECHANISM EXPLODED VIEW

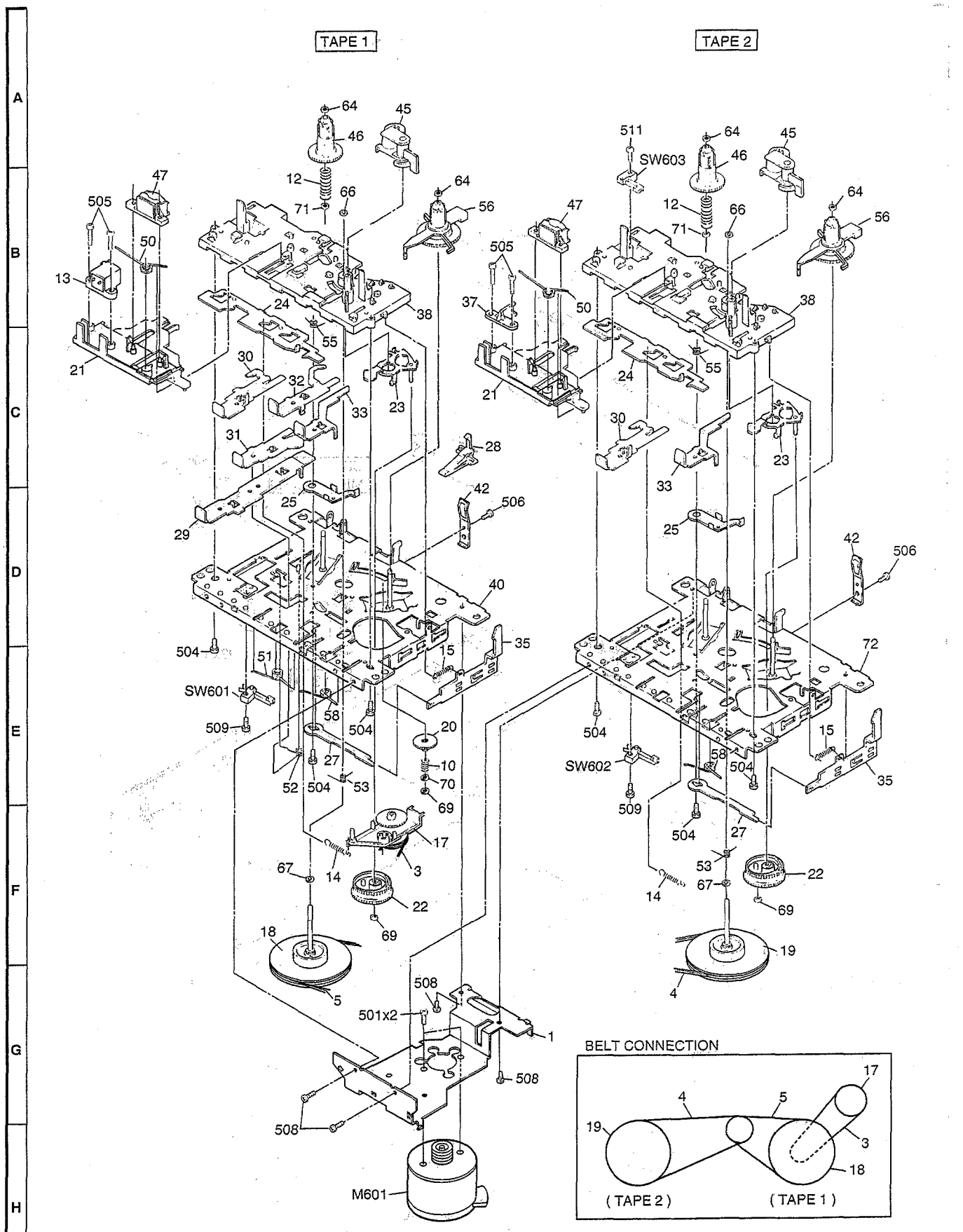


Figure 8 TAPE MECHANISM EXPLODED VIEW

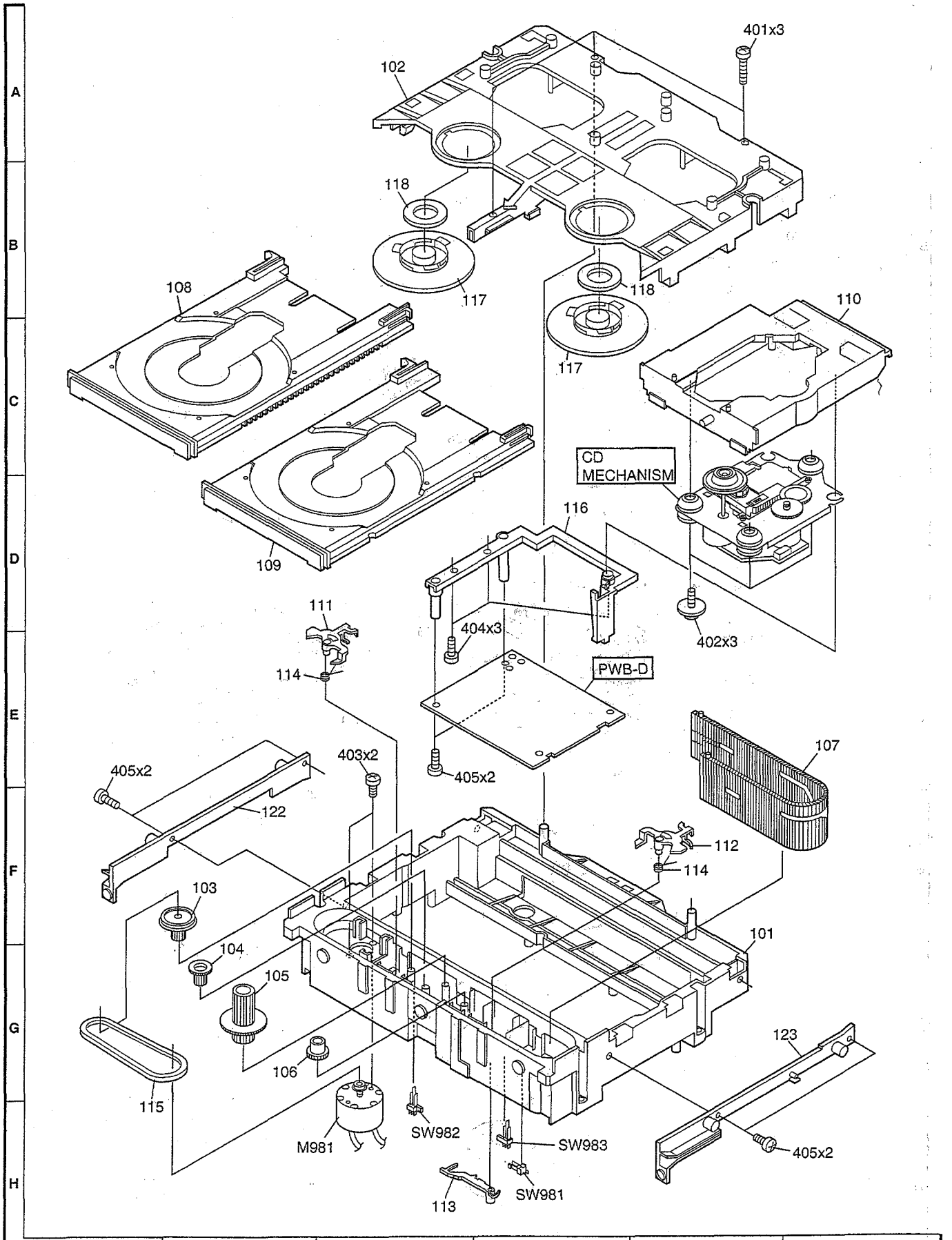


Figure 9 CD CHANGER EXPLODED VIEW

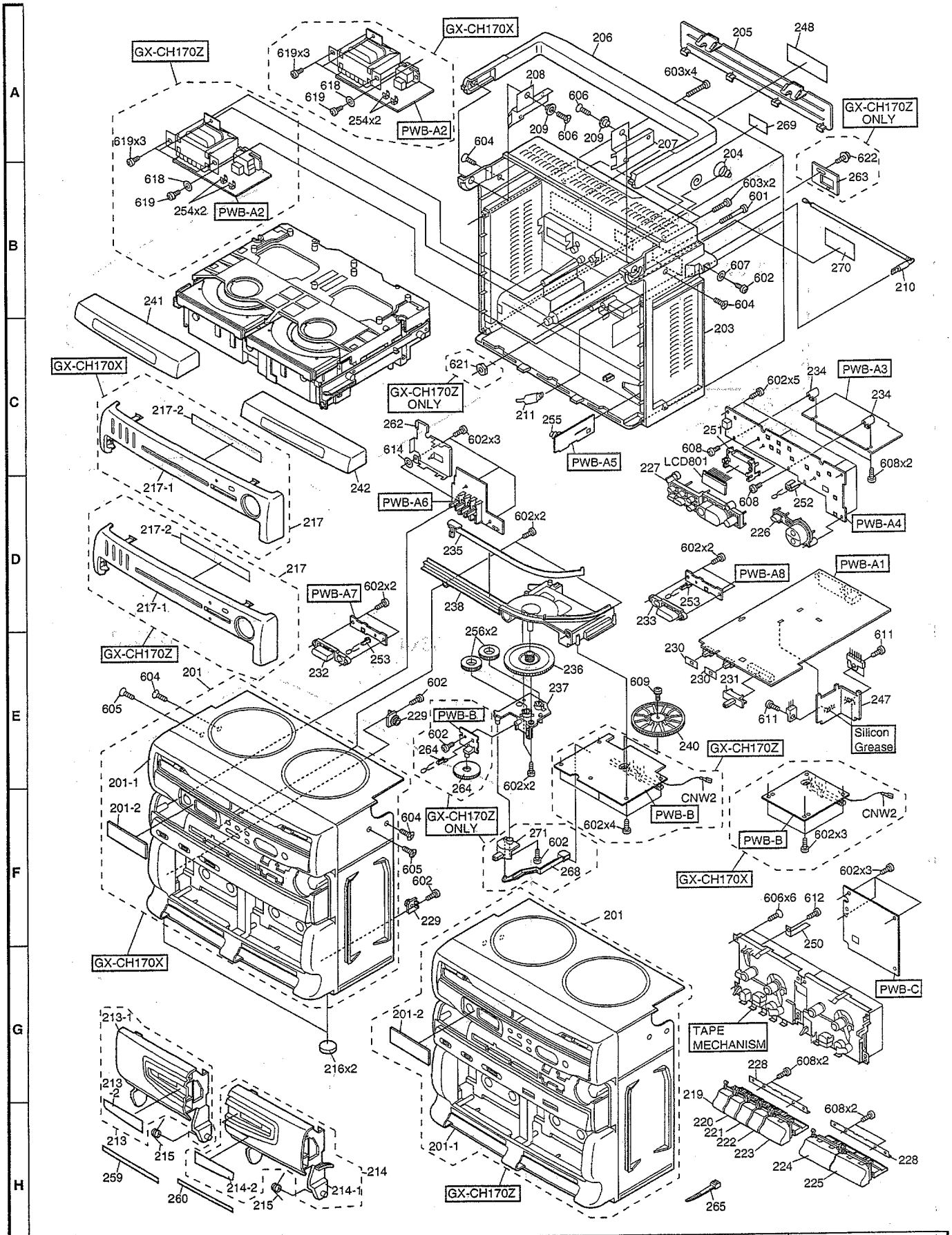


Figure 10 CABINET EXPLODED VIEW

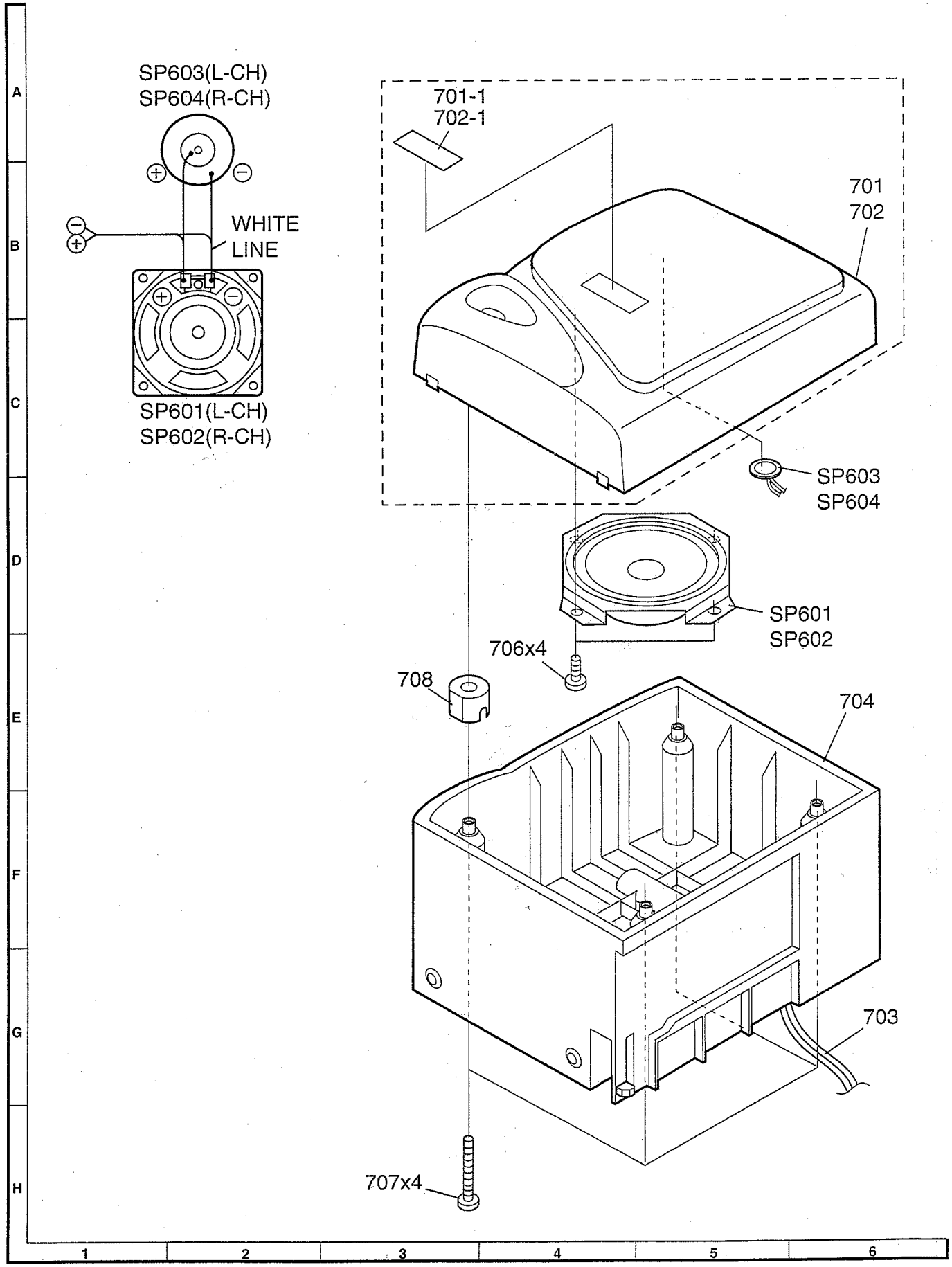


Figure 11 SPEAKER BOX VIEW